

## ABSTRACT

### THE ROLE OF PERSPECTIVE-TAKING IN READING AND ITS RELATIONSHIP TO EMPATHY IN CHILDREN

Research demonstrates that the development of empathy is related to prosocial behavior, and may be increased in children via interventions practicing perspective-taking to produce positive social effects. Reading comprehension seems to inherently involve perspective-taking with story characters in order to understand the context of a story; literature-based interventions have demonstrated moderate success in increasing prosocial behavior. This study investigated the use of a perspective-taking reading intervention to increase the empathy of 17 sixth- and seventh-grade students. Pre- and posttest scores on Bryant's Index of Empathy for Children and Adolescents and an AIMSweb MAZE task were compared to determine if students who evaluated literature by writing a paragraph from the perspective of a story character (N=9) experienced a greater increase in empathy and reading comprehension than students who evaluated literature by recording facts from the story (N=8). Differences in empathy and reading comprehension between pre- and posttests were not significant. Although this suggests that utilizing perspective-taking interventions while reading literature is ineffective to increase empathy or improve reading comprehension, limitations of the present study merit further examination of the concept.

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THE ROLE OF PERSPECTIVE-TAKING IN READING AND ITS  
RELATIONSHIP TO EMPATHY IN CHILDREN

by

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## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	vii
CHAPTER 1: INTRODUCTION .....	1
CHAPTER 2: LITERATURE REVIEW .....	4
Empathy in Children .....	4
Perspective-Taking Interventions .....	7
Perspective-Taking in Reading .....	8
Conclusions .....	14
The Present Study .....	15
CHAPTER 3: METHOD.....	16
Participants .....	16
Instruments .....	16
Design and Procedure .....	19
Research Hypotheses .....	20
CHAPTER 4: STATISTICAL ANALYSES .....	21
Overview .....	21
Demographic Information.....	21
Perspective-Taking and its Relationship to Empathy .....	22
Reading Comprehension .....	23
Quality of Work .....	24
CHAPTER 5: DISCUSSION .....	26
REFERENCES .....	33
APPENDICES .....	38
APPENDIX A: PERSPECTIVE-TAKING WORKSHEET.....	39

APPENDIX B: FACT-BASED WORKSHEET .....	41
APPENDIX C: BRYANT'S INDEX OF EMPATHY FOR CHILDREN AND ADOLESCENTS.....	43
APPENDIX D: SAMPLE AIMSWEB MAZE TASK.....	47
APPENDIX E: INFORMED CONSENT FORM .....	49
APPENDIX F: STUDENT ASSENT FORM .....	53
APPENDIX G: SCRIPTED EXPLANATION OF THE STUDY.....	55



## LIST OF TABLES

	Page
Table 1. <i>Demographic Statistical Information of Participants by Group</i> .....	21
Table 2. <i>Descriptive Statistics of Fact-Based Group and Perspective-Taking Group Pretest and Posttest Scores on Bryant's Index of Empathy for Children and Adolescents</i> .....	22
Table 3. <i>Descriptive Statistics of Fact-Based Group and Perspective-Taking Group Pretest and Posttest Scores on AIMSweb MAZE</i> .....	25

## CHAPTER 1: INTRODUCTION

Moral development is not a new area of interest in American public schools. The education of children in morals and values was openly supported since the humble beginnings of public education until the 1930s (Adler & Foster, 1997). This concept was rooted in the idea of “educating the whole child,” which was a consistent value of numerous ancient cultures (Elias, 2006, p. 5). In light of difficult social issues among children and teens, such as school shootings and bullying, the subject of social-emotional education has once again received heightened attention. School-based social-emotional learning programs take many different forms and are often included in a school’s goals for student success. Currently, however, student development beyond the rigors of mathematics and English language arts has been placed low on the educational priority list.

After the No Child Left Behind Act (NCLB) of 2002 was passed, schools were forced to focus on meeting academic standards; success was to be judged by the results of standardized tests. Schools that fail to meet benchmark standards face the danger of sanctions and joining roughly 40% of United States schools with the label of “failing school” (Darling-Hammond, 2007). Academic curricula have been progressively narrowed as administrators and educators aim to adequately prepare students for nation-wide standardized exams. NCLB holds schools accountable for instructional time and interventions, often resulting in scripted curricula and an elimination of any “superfluous” lessons. Programs that focus on the development of positive social skills and emotional development are taxing on time and financial resources. With such emphasis placed on academics and performing at increasingly high standards, it is no surprise that administrators and teachers may be reluctant to invest priceless class time in demanding moral

development programs that do not simultaneously and directly increase academic scores (Daunic, Smith, Brank, & Penfield, 2006).

One potentially promising area in social-emotional learning is the development of perspective-taking, which research has linked to empathy. In turn, numerous studies have demonstrated that perspective-taking, as an important component of empathy, may contribute to prosocial behavior. While intentionally intervening with students to build levels of perspective-taking is an option, there may be more subtle ways of embedding it within curricula. Research has demonstrated that perspective-taking may be a key component of reading comprehension, a main area of focus for meeting academic standards.

With increasing responsibility placed on schools for a child's overall well-being, it is crucial to identify inexpensive and time-efficient strategies to increase social skills in children without sacrificing the priority that schools must place on academics. Social-emotional learning opportunities have been linked to improved skills in language arts and mathematics, as well as longitudinal increases in school achievement, and higher test scores (Zins & Elias, 2006). This study aims to investigate the potential to embed perspective-taking within a school's pre-existing reading curriculum, in hopes that this technique may facilitate moral and academic education simultaneously. This, in turn, may save schools time and money, while also producing students with not only better reading skills, but higher levels of empathy as well.

The present study explores the potential to build empathy and positive behavior by increasing perspective-taking in the reading of literature. A research review will investigate the general understanding of empathy within literature, the development of empathy in children, and the role empathy plays in prosocial behavior. Recent efforts to build empathy through perspective-taking

interventions will be discussed, and the relationship between perspective-taking and reading will be explored. Lastly, past attempts to build perspective-taking through literature-based interventions will be discussed and evaluated to illustrate the purpose for the present study.

## CHAPTER 2: LITERATURE REVIEW

### Empathy in Children

There is an extensive body of literature on empathy and its development in children. Empathy has been described as “feeling with” others (Van der Bolt & Tellegen, 1995), or a sharing of emotional responses between one person and another (Feshbach, 1975). That simple definition may fail to capture a much more complicated concept. Empathy has been identified as a result of both cognitive awareness and affective response to a situation (Hoffman, 2000). Feshbach suggested three main components of empathy: the ability to cognitively take the perspective of another person (also referred to as role-taking), the ability to accurately read social cues of another’s emotional experience, and the ability to experience a range of emotions, as this would allow one to access a broad range of experiences to relate to another. In addition, other research has suggested that it is not enough to simply “feel with” another person, but to be able to mediate the level of threat one feels from the empathic response: prosocial children experience only moderate levels of threat and cognitively restructure problems so they can help the person in need (Bengtsson, 2003).

### Development of Empathy

The developmental literature that investigates empathy in children further enriches this topic. There is a large body of research that helps to clarify empathic abilities of children of different ages. Hoffman (2000) describes four social-cognitive stages: difficulty distinguishing between self and other, awareness of others as separate from the self, awareness of difference between one’s own and another’s internal states, and awareness of differences of one’s own and another’s personal history and life outside of the present moment. The earliest signs of

empathy are indicated in a newborn's reactive cry in response to another infant's cry of distress; one is indistinguishable in intensity from the other. In early childhood, children begin to understand connections between emotions, facial expressions, and consequences for behavior. During middle childhood, children begin to realize connections between their own feelings and those of another, and become aware of their own empathic distress in response to another. Hoffman considers this a prerequisite to empathy. Developmentally, children gradually move from self-focused responses of personal empathic distress to other-centered prosocial behavior (DeVries, Hildebrandt, & Zan, 2000). In support of this, the preliminary study of Bryant's Index of Empathy for Children and Adolescents (Bryant, 1982) documented a positive relationship between age and empathy.

Many empathy researchers believe that this developmental process is largely involved with stages of moral development. After all, it seems logical that if empathy involves a certain level of cognition and ability to understand the affect of another, one must reach a developmental stage that would allow one to do so. Three main areas of morality are traditionally investigated in literature: cognition, affect, and prosocial behavior (Vasta, Miller, & Ellis, 2004). Among the most widely recognized cognitive theorists of moral development are Jean Piaget and Lawrence Kohlberg. These theorists maintain that a child must reach a certain cognitive level of functioning in order to approach moral dilemmas from increasingly complex angles. Piaget's four-stage theory describes the gradual transition of a child from no morality, to unilateral respect of authority, to moral relativism and an understanding of increasingly complex moral dilemmas. Kohlberg's three levels of moral development (preconventional, conventional, and postconventional) describe increasing ability in social perspective-taking which, in turn, develops a deeper understanding of complicated moral questions. These

developmental stages or levels are important to consider when attempting to increase a child's cognitive perspective-taking and moral understanding; a child is limited by his or her level of cognition or experience of varying emotions (Walker, 1980).

### Empathy and Prosocial Behavior

Building empathy in children has been a goal of many behavioral interventions due to its relationship with prosocial behavior. Empathy has been positively associated with helping behaviors (Vasta et al., 2004). A negative relationship between empathy and aggressive behavior has been identified and supported in research (Bryant, 1982; Lopez, Perez, Ochoa, & Ruiz, 2008; Morissette, 1979). Literature suggests that increasing empathy may be among best practices for decreasing chronic bullying behavior (Felix & Furlong, 2008), and empathy is also related to one's willingness to accept differences in others (Chalmers & Townsend, 1990). These findings are just a sampling of studies that emphasize empathy as an important factor in the formation of positive relationships between children and their peers.

Conversely, the lack of empathy can lead to serious problems in social relationships. The *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2000) includes low levels of empathy as part of the diagnostic criteria for Narcissistic Personality Disorder for adults and children. Narcissistic children demonstrate significantly lower levels of empathy and struggle with managing aggression, which may eventually result in difficulty with interpersonal relationships with peers (Weise & Tuber, 2004).

### Perspective-Taking Interventions

Many social interventions involve the increase of the perspective-taking component of empathy in order to change behavior. Although perspective-taking was not empirically investigated until the 1960s, philosopher David Hume recognized its obvious importance nearly 250 years ago (Hoffman, 2000). Hume's conclusions match current research findings, suggesting that, in order for one to relate to the feelings of another individual, one must be able to see life from another person's perspective. Hoffman suggests that this may take two forms: self-focused perspective-taking (imagining how one would feel if one were placed in the same situation as another), or other-focused perspective-taking (primary concern with the feelings of another).

Perspective-taking interventions assume the logic that if one sees one's hurtful behavior through the eyes of another, this may discourage one from treating other people badly. Perspective-taking has been linked with comforting others, as well as helping and sharing behaviors (Eisenberg & Morris, 2004). While in some children this ability seems to broaden naturally, it appears other children and adolescents must be taught how to consider the view of another before acting. Chalmers and Townsend (1990), inspired by earlier research on the effectiveness on role-playing to increase perspective taking, created a social skills program for "delinquent" girls between the ages of 10 and 16. In this intervention program, interpersonal perspective-taking skills were discussed and modeled by the instructor, then were rehearsed by the students. Researchers found significant changes between those in the program and the control group: among these were an increase in resolution of problems with peers, an increase in empathy, and more prosocial behaviors in the classroom. Other researchers used an interactive drama experience to induce role-taking amongst students (Day, 2002). Although this



study did not include tests of significance or objective measures, interviews with students led researchers to believe that students felt an “empathic identification” with other characters in the play, and their experience in this intervention led them to generalize the experience to other peers in difficult situations similar to those encountered in the exercise.

### Perspective-Taking and Imagination

Perspective-taking implies the use of something children seem to have in large supply: imagination. Phrases like “moral imagination” seem to be common in literature. However, it appears that literature connecting these two elements is scarce. Bryant’s (1982) Index of Empathy for Children and Adolescents assesses imaginative role-taking within media and requires children to respond to imaginary situations (Strayer & Roberts, 1989). Strayer and Roberts found that teachers’ reports of a child’s high levels of imaginative thinking related positively to empathy and perspective taking. Morissette (1979) found a significant positive correlation between “imaginative predisposition” and empathy. Also, high “imaginative predisposition” related negatively to aggression, suggesting a connection between imagination’s role in perspective-taking and empathy’s role in reduced aggression. This may suggest that the use of imaginative activities may eventually and indirectly lead to prosocial behavior.

### Perspective-Taking in Reading

Educators constantly utilize a child’s imaginative predisposition in the classroom. Teachers look for ways to motivate students to read, either by searching for engaging books, or participating in rewards programs for reading. The imaginative thinking involved when reading may help one to embark on a refreshing escape from reality and to build relationships with a story’s characters

(Van der Bolt & Tellegen, 1994). And creative writing, which seems to operate through a similar imaginative process as reading, often exhibits the development of empathy within children (Brill, 2004).

There are numerous advantages to reading books when considering their potential effect on building empathy. Books provide the opportunity to experience many situations and relationships otherwise not encountered in real life. Books have addressed different issues such as racism or the Holocaust, which may force children to take the perspective of an individual who has experienced great oppression without having to live the tragedy personally. Van der Bolt and Tellegen (1994) agree that books have the ability to emphasize emotions, and manipulate the reader to focus his or her attention on emotional situations. They also emphasize that reading a book gives one the opportunity to live through social interactions with minimal threat. When one is interacting with another person in real life, one does not have the opportunity to “rewind” and try again, nor can one skip the situation altogether when an altercation becomes too heated. However, in a book, a page can be read and re-read, or pages can be skipped to avoid a situation too graphic for the reader to tolerate. Humans like to feel intensely without inhibiting affect, and books provide the means to do this in a safe environment.

The term “narrative imagination” has been used (Nussbaum, 1996, as reviewed by Von Wright, 2002) to discuss the ability to read the “story” of another person. This appears to be another understanding of what psychological literature refers to as perspective-taking. It is interesting that this wording has been used, as it directly connects stories and role-taking. Von Wright addressed the connection between literature and “narrative imagination,” emphasizing that reading not only allows us to participate in experiences we may not have in real life, but that it also

allows us to share these experiences with others and think critically about how they should be handled individually and within society (Von Wright, 2002; see also Jack & Ronan, 2008). Reading a fictional story may, in fact, help us practice reading the “stories” of others in the real world.

### Perspective-Taking and Reading Comprehension

Research has also indicated that perspective-taking is naturally embedded within the process of understanding literature. Deictic terms are used in the English language to disclose information about the situation in which people or characters are interacting (Murphy, 1986). They fall into four different categories that give the reader clues to the context of a story. Person-deixis are pronouns that indicate who is talking or receiving, such as *I* or *his*. Temporal-deixis are verbs or adverbs that indicate knowledge of time, such as *now* or *then*. Place-deixis indicate spatial context of the characters, such as *here* or *there*. Deictic motion verbs involve the person, spatial context, and time, such as using *come* instead of *go*. These terms are not limited to literature only, but are present in spoken-language as well. One difference between written and spoken language is that interactive spoken language usually assumes the same spatial and time context for both the speaker and the listener. However, in written language, an individual must use cues within the literature to identify the place, time, and identity of the speaker. This requires the ability to take perspective.

Murphy (1986) investigated children’s understanding of written and oral deictic terms. Her study included 72 second-grade students, and Murphy hypothesized that their developmental limits would make it more difficult for them to accurately interpret the deictic terms when they had to take the perspective of another person. Results supported this hypothesis. Children had more difficulty

when they had to adopt the role of another person in order to accurately interpret the terms. Children also had more difficulty interpreting words used in written language than spoken language because problems with perspective-taking were compounded by having to identify a different time and spatial context than their own. Additionally, students in this study who had higher levels of reading achievement demonstrated fewer errors when interpreting deictic terms in a written dialogue. This coincides with Feshbach and Feshbach's (1987) earlier findings of a moderate positive correlation between girls' level of empathy at age 8-9 and reading achievement scores as age 10-11, as indicated on the Wide-Range Achievement Test. This research supports the idea that perspective-taking is an important part of reading comprehension.

Another study on narrative understanding examined just how much perspective-taking was involved in the comprehension of deictic terms (Ziegler, Mitchell, & Currie, 2005). The authors of this study operated under the assumption that individuals are cued, while reading, to develop the perspective of the individual to which the deictic terms refer, and if the deictic terms are inconsistent with this perspective, the reader will unintentionally adjust the terms to fit with the role they have taken. In this three-experiment study, Ziegler and colleagues investigated whether children engage in perspective-taking while reading a story, if children are more inclined to take the perspective of an attractive protagonist (versus a morally "bad" protagonist), and if children would still engage in perspective-taking if the story did not have a protagonist, defined as a "character with his or her own agency" (p. 116). They found that children were more inclined to accurately recall deictic terms when they were consistent with the role of protagonist. Children also display perspective-taking ability whether the protagonist was attractive or not, demonstrating that perspective-taking within a

narrative is inevitable. Lastly, children also shift perspective even when the protagonist does not have its own agency, such as a car or toy. This study indicates that readers engage in perspective-taking while reading; it is an inherent part of the comprehension process.

### Literature-Based Interventions

Books have been used for centuries as therapeutic agents for physically and mentally ill individuals (Jack & Ronan, 2008). The use of literature to assist in the healing process has been documented since the Middle Ages through its use in military hospitals during World War II. The term “bibliotherapy” was coined to describe the process of using books to improve health, although it is still vague exactly what this entails. Some early attempts to define bibliotherapy more clearly have alluded to perspective-taking, and case studies using reading for therapeutic means have implied the usefulness of literature in facilitating role-taking with the characters.

Literature suggests a positive correlation between frequency of reading and empathic feelings (Van der Bolt & Tellegen, 1994). In a study investigating this connection, high frequency readers were more likely to report feelings of pity, empathy, and an obligation to relate to characters (in response to the statement “I cannot but feel with what happens in this book”) than low frequency readers. It should be noted that this study based conclusions on percentages of light- and heavy-readers who identified feelings of sympathy and empathy while reading a book, and no statistical analyses were conducted to verify that these differences were greater than chance levels. Nor can these results imply causality; it is unclear whether the frequent reading of books increases feelings of empathy and sympathy, or if these feelings encouraged more frequent reading.

Trepanier and Romatowski (1982) developed a program based on the relationship between reading and perspective-taking in hopes of increasing prosocial behavior in children ages 5 to 7 years. In this intervention, researchers selected children's books that focused on sharing or resolving conflict, and teachers were trained to ask planned questions that helped the children focus on feelings of the characters, the conflict within the story, the resolution of conflict, and the resulting change in feelings. These questions were asked in the middle of each story and the answers were reviewed at the end to further emphasize the importance of resolving interpersonal conflicts. The control group completed a similar task, but the stories did not involve sharing and conflict resolution and questions focused only on the events in the story. To test each child's ability to take perspective, children were read anecdotes and were shown corresponding picture cards that illustrated the characters. There was no significant difference in the successful labeling of feelings for the treatment or control group, possibly due to high scores on the pretest for both groups and the resulting ceiling effect during the posttest. However, a significant difference between the treatment group and control group was found in the children's ability to accurately identify the source of information about a character's feelings (such as facial expression or body language) illustrated on the picture cards. Trepanier and Romatowski concluded that a reading-based intervention might help with prosocial development in children.

A similar study investigated the use of books that emphasize "caring attitudes" to increase prosocial behavior amongst adolescents (Adler & Foster, 1997). Participants in the treatment group participated in a reading project that included reading three books emphasizing caring for others and guided discussions that addressed the theme. Participants were tested with pre- and post-essays, later

coded by researchers for examples of caring behavior. Adler and Foster deemed the effect of the treatment modest at best, and found statistical significance for the differences between groups only in the realization that friends can often take the role of family. However, some concern with the results of the study was addressed in the discussion; social desirability and a ceiling effect may have played a role.

### Conclusions

The collection of literature on empathy, prosocial behavior, perspective-taking and reading seems to imply that literature may be of great use in building empathy for children. However, research has revealed some guidelines when forming an appropriate program. One of the first considerations when planning a literature-based program to increase empathy is the age and developmental level of the child. One cannot expect a 2 year-old to be able to take perspective of another and act accordingly, as toddlers are, for the most part, egocentric, and even preschoolers are just beginning to realize that others can have different feelings when confronted with the same event (Hoffman, 2000). Level of cognition is not only important for moral development, but also for understanding of literature. For example, children reading fables and proverbs interpret them differently, depending on age level (Saltz, 1979). Schools take great care to find literature of appropriate reading level for students. An attempt to increase empathic ability should be no different.

Research makes it clear that perspective-taking is inherent in the reading of literature, but studies on the effect of literature-based manipulations of perspective-taking on empathy are limited. Even studies that seem to remove the empathy link between reading and prosocial behavior focus more on an

individual's understanding of what "should" be done next, and not on the increase of positive behavior itself (Adler & Foster, 1997; Trepanier & Romatowski, 1982). There is no question that higher levels of empathy are associated with prosocial behavior, but literature does not address if perspective-taking while reading can actually be generalized to increase empathy in real-life situations. Perhaps, by creating assignments that require critical thinking and perspective-taking with characters in a story, schools may increase reading comprehension and empathy within students simultaneously.

### The Present Study

The present study attempts to more deeply understand the potential for perspective-taking during the reading of literature to increase empathy and reading comprehension within children. This was accomplished with the use of a short, creative writing exercise to evaluate literature. If repeated practice of perspective-taking helps to improve empathy, as literature would suggest, writing a paragraph from the perspective of a story character may do the very same thing without a time-consuming intervention. More specifically, this study investigates if continuous perspective-taking with fictional characters will mimic the effects of real-life perspective-taking interventions aimed to increase empathy and prosocial behavior. Literature suggests the importance of considering the age of the student; a child's perspective-taking abilities are limited by his or her maturity. In summary, the main questions of this study are, "Does the use of a short, creative perspective-taking writing exercise to evaluate literature increase the general level of empathy in middle school students? Does the perspective-taking writing exercise simultaneously improve reading comprehension as well?"



## CHAPTER 3: METHOD

### Participants

Thirty-two students from the 2009-2010 sixth- and seventh-grade classes of a small, private middle school in central California were asked to participate in this study. A convenience sample of 5 boys and 12 girls participated in the sample with parent permission. At the beginning of the study, the students ranged in age from 11 to 13 and were relatively equally dispersed among age and grade. As compensation for participation in the study, participating students were rewarded with a small party and a raffle for appropriate prizes.

### Instruments

The independent variable in this study is the type of intervention: perspective-taking or fact-based. Participating students were randomly assigned to a group by an online random number generator. The perspective-taking group received a worksheet each time a story was read in class consisting of a prompt to briefly summarize the story and a prompt to write a paragraph from the perspective of a character about an event in the story (see Appendix A). The fact-based group received a worksheet each time a story was read in class consisting of a prompt to briefly summarize the story and a prompt to answer five fact-based questions about the story (see Appendix B). The worksheets for both the perspective-taking and fact-based groups were developed by the researcher. Reliability and validity of the manipulations are unknown.

### Empathy

One dependent variable in this study is each student's general level of empathy. This was measured before and after the treatment for both groups using

Bryant's Index of Empathy for Children and Adolescents (Bryant, 1982; see Appendix C). Each student answered 22 questions on a 9-point format, with responses ranging from -4 (very strong disagreement) to +4 (very strong agreement), as is suggested for use with seventh graders (Bryant, 1982). Items 2, 3, 9, 10, 15, 16, 17, 18, 20, 21, 22 are reverse-scored. The internal consistency for seventh-grade children was .79, and 2-week test-retest reliability was  $r(80) = .83$ . There is a significant correlation between Bryant's Index and other strong affect-based scales of empathy. Convergent aspects of construct validity have been demonstrated with prosocial behavior, moral reasoning, and reduced aggression, and divergent aspects have been demonstrated with social desirability and cognitive functioning (Bryant, 1987).

### Reading Comprehension

This study additionally included a pre- and post-treatment measurement of reading comprehension to evaluate the effects of a perspective-taking intervention on this important area of academic achievement. This was measured using the AIMSweb Maze curriculum-based measurement task (Shinn & Shinn, 2002; for a sample task, see Appendix D). Maze is a multiple-choice task in which a student selects one of three words to complete a sentence. Each student is given a 150- to 400-word reading prompt with the first sentence intact. Beginning with the second sentence, every seventh word is given in a multiple-choice format. A standardized list of directions is read to the student, and the student is given 3 minutes to complete the task. According to the National Center on Response to Intervention (NCRTI, 2009), the AIMSweb Maze task demonstrates "convincing evidence" of reliability and validity of the performance level score, alternate forms reliability, and is sensitive to student improvement.

### Quality of Work

In addition to the measure of reading comprehension, student summaries of the text selections were scored on the basis of depth and understanding. Students were given a score of 1, 2, or 3, based on the quality of story summary he or she wrote on each worksheet. On the summarization portion, a score of 1 indicated that the student demonstrated low understanding of the passage and did not record the main concept. A score of 2 indicated that the student demonstrated an average understanding of the passage and identified the main idea. A score of 3 indicated that the student demonstrated an excellent understanding of the passage and, in addition to the main idea, included supporting details from the passage.

A separate score of 1, 2, or 3 was given for the quality of the student's response to the perspective-taking or fact-based task. A score of 1 indicated that the student did not appear to understand the task or gave incomplete responses. A score of 2 indicated that the student exhibited some understanding of the task and attempted to give complete answers. A score of 3 indicated that the student exhibited a clear understanding of the task and gave a thorough, complete response. Worksheets were scored individually by the researcher. An average "quality of work" score, ranging from 2 to 6, was calculated for each student by adding scores from the summary paragraph and the fact-based or perspective-taking task, and the score was compared to each student's post-treatment level of empathy and reading comprehension for additional discussion. Although the statistical reliability and validity of the overall "quality of work" score are unknown, face validity of the measure would indicate that the given ratings are an appropriate measure of the quality of student responses. While the focus of this study remains on the impact of a perspective-taking intervention on empathy in children, the inclusion of reading comprehension and summarization data provide

supplementary information about the usefulness and effectiveness of the intervention.

### Design and Procedure

Permission to implement the study was granted by the middle school principal and language arts teacher. A consent form was sent home with students to inform parents of the study and obtain permission for the child's participation (see Appendix E). All students in sixth and seventh grade were given an assent form explaining basics of the study and potential risks involved with participation (see Appendix F). The assent form and a scripted explanation of the study were read to the students by the researcher, and students were given the opportunity to ask questions for clarification (see Appendix G). Signatures from the student and his or her legal guardian were required before the student was permitted to participate in the study.

A pretest-posttest control group design was used for this study. Students were randomly assigned to the fact-based group, focusing on an exercise asking the student to analyze report facts from a story, or the perspective-taking group, focusing on an exercise that required the students to take the perspective of a character. Bryant's Index of Empathy for Children and Adolescents and the AIMSweb Maze task were administered to all students before the intervention began. Over the course of the next 10 weeks, the students completed a fact-based or perspective-taking worksheet each time they participated in silent reading of a story; some students used novels they had selected personally, and other students used novels they were reading for the required curriculum. The teacher gave students who chose not to participate an alternative assignment. The number of completed worksheets ranged from 4 to 12. Upon completion of a worksheet,

each student was given a ticket to be included in a raffle for small prizes at the end of the study. When the intervention was complete, all students were administered Bryant's Index and the AIMSweb Maze task again. Notably, the original AIMSweb Maze task and an alternative form of the Maze task were administered during the posttest in order to ensure the students' reading comprehension scores were not inflated by practice effects.

After completing the intervention, the participating students were debriefed, had the opportunity to ask questions, and were rewarded with a small party and a raffle for prizes. No students reported any feelings of distress as a result of the study.

#### Research Hypotheses

It was hypothesized that students who wrote a paragraph from the perspective of a story character would show a significantly greater increase of points on Bryant's Index of Empathy for Children and Adolescents and the AIMSweb MAZE task than students who answered fact-based questions from a story. In addition, it was also expected that the "quality of work" invested in the responses would significantly predict posttest empathy and reading comprehension scores.

## CHAPTER 4: STATISTICAL ANALYSES

### Overview

Data collected from this study were statistically analyzed to evaluate the effects of the intervention. First, demographic data are reviewed and evaluated to better describe the participants in the study. Next, statistical analysis of the relationship between participation in the perspective-taking group or fact-based group and changes in empathy are discussed, followed by the effects of group participation on the students' overall change in reading comprehension. Lastly, the students' effort on the worksheets is assessed to determine how well it predicts empathy and reading comprehension scores.

### Demographic Information

Demographic information was collected from the participants (see Table 1). A total of 17 students participated in the study, who ranged in age from 11 to 13 ( $M=12.06$ ). Approximately half the sample was in 6<sup>th</sup> grade at the time, and half in 7<sup>th</sup> grade. Although more than twice as many girls participated in this study than boys, both the perspective-taking and fact-based groups had the same number of girls and nearly the same number of boys.

Table 1.

*Demographic Statistical Information of Participants by Group*

Group	Sex		Age			Grade	
	Boys	Girls	11	12	13	6 <sup>th</sup>	7 <sup>th</sup>
Perspective-Taking	3	6	1	4	4	4	5
Fact-Based	2	6	4	2	2	4	4
Total	5	12	5	6	6	8	9

Perspective-Taking and its Relationship to Empathy

An Analysis of Variance (ANOVA) was used to investigate the relationship between participation in the perspective-taking exercise and the students' change in scores on Bryant's Index of Empathy for Children and Adolescents. Descriptive statistics of the two groups and the mean pretest and posttest scores on the Bryant Index of Empathy are included in Table 2. Due to the large differences in the scores on the pretest measure of empathy between groups, an independent t-test was first conducted to evaluate if the pretest scores differed significantly. The mean pretest score on Bryant's Index of Empathy did not differ significantly between the perspective-taking ( $M = 14.78$ ,  $SD = 27.03$ ) and fact-based groups ( $M = 1.75$ ,  $SD = 26.87$ ),  $t(15) = 1.0$ ,  $p > .05$ .

Table 2.

*Descriptive Statistics of Fact-Based Group and Perspective-Taking Group Pretest and Posttest Scores on Bryant's Index of Empathy for Children and Adolescents*

Group	Minimum	Maximum	M	SD
Fact-Based Group (N=8)				
Pretest	-28	42	1.75	26.87
Posttest	-27	33	4.63	20.59
Change in Empathy			2.88	11.80
Perspective-Taking Group (N=9)				
Pretest	-21	64	14.78	27.03
Posttest	-21	64	13.33	23.92
Change in Empathy			-1.44	14.88

In order to evaluate the change over time, posttest scores on Bryant's Index of Empathy were subtracted from pretest scores, and the resulting difference score was used as a variable in the statistical analyses. The ANOVA evaluated if the mean difference in empathy scores on the measure between pretest and posttest differed between students participating in the perspective-taking exercise and students participating in the fact-based exercise. The mean change in score on Bryant's Index of Empathy did not differ significantly between the perspective-taking and fact groups,  $F(1,15) = .43, p > .05, \eta^2 = .03$ .

### Reading Comprehension

Each student's reading comprehension was measured using the AIMSweb MAZE, a tool typically used to monitor student progress in reading comprehension by frequent (usually weekly) administration and scoring. Student progress is monitored as students complete the same "MAZE" task on different stories, which are assumed to be of equal difficulty. In order to control for practice effects and potential differences in the level of difficulty among the different stories, the original MAZE story, which was administered before the experiment as a pretest, and an additional MAZE story that had never been read by the students were administered to evaluate reading comprehension as a posttest measure. The percentage scored correctly by the students on each reading comprehension posttest measures were compared using an independent samples t-test. There was no statistical difference between percentage scored correctly on the MAZE task used as a pre-and posttest measure ( $M=65.65, SD = 22.017$ ) and the MAZE task only used as a posttest measure ( $M=65.18, SD = 21.591$ ),  $t(16) = .171, p > .05$ . Therefore, in order to reduce the effects of practice on individual



scores, further calculations and analysis were conducted using only the scores from the MAZE task that had not been used during the pretesting session.

Secondly, an ANOVA was used to evaluate if the mean level of change in reading comprehension scored differed between students participating in the perspective-taking group and students participating in the fact group (see Table 3). In order to evaluate the change over time, percentage scored correctly on the posttest MAZE task was subtracted from the percentage scored correctly on the pretest MAZE task, and the resulting difference score was used as a variable in the statistical analysis. The mean change of percent scored correctly on the MAZE comprehension measures did not differ significantly between the perspective-taking and fact-based groups,  $F(1, 15) = 1.97, p > .05, \eta^2 = .12$ . Notably, a paired-samples t-test indicated that the mean posttest score of students participating in the fact-based group ( $M=71.25, SD=14.10$ ) was significantly higher than the mean pretest score ( $M=52.50, SD=10.99$ ),  $t(7) = -3.58, p < .01$ , indicating that students in the fact-based intervention group demonstrated significant gains in reading comprehension over the course of this study.

#### Quality of Work

Each perspective-taking and fact-based worksheet was evaluated to assess the student's general understanding of the task and thoroughness of response. Each student could earn up to 3 points for the summary of the reading, and 3 points for the completion of the perspective-taking or fact-based tasks, resulting in a total of 6 points. A mean "quality of work" score was calculated for each student. The mean number of worksheets completed by each student was 9.12, and the mean "quality of work" score was 4.73,  $SD = 1.00$ . There was no significant relationship between the number of worksheets completed and posttest empathy scores,

Table 3.  
*Descriptive Statistics of Fact-Based Group and Perspective-Taking Group Pretest and Posttest Scores on AIMSweb MAZE*

Group	Minimum	Maximum	M	SD
Fact-Based Group				
Pretest	33	65	52.5	10.99
Posttest	50	88	71.2	14.10
Change in Reading			18.7	14.81
Perspective-Taking Group				
Pretest	20	96	50.6	24.50
Posttest	34	98	59.7	26.24
Change in Reading			9.11	13.51

$r(15) = .10$ ,  $p > .05$ , although a positive correlation approaching statistical significance was found between the number of worksheets completed and posttest reading comprehension,  $r(15) = .47$ ,  $p = .06$ . A simple linear regression was used to individually evaluate if the students' mean "quality of work" score was a significant predictor of their posttest empathy, or reading comprehension. The mean quality of work score was not a significant predictor of posttest scores in empathy,  $\beta = -.18$ ,  $t(16) = -.72$ ,  $p > .05$ , nor reading comprehension,  $\beta = .35$ ,  $t(16) = 1.46$ ,  $p > .05$ .

## CHAPTER 5: DISCUSSION

Previous research has linked perspective-taking interventions to increased empathy, indicating that one's empathy can be increased by deliberately practicing taking the perspective of others. Current literature also has evaluated the essential role perspective-taking plays in reading comprehension. A thorough review of literature suggests that if perspective-taking occurs naturally while reading and can help build the empathy necessary for prosocial behavior with others, one would suspect that deliberately taking the perspective of a character while reading would also help improve one's empathy. However, few studies, if any, have attempted to evaluate the role perspective-taking while reading may play in increasing empathy. The primary purpose of this study was to take the research gathered in the literature review a step further by investigating the use of a perspective-taking reading intervention to evaluate if the exercise would facilitate a greater increase in empathy than an alternative, fact-based assignment. The potential benefits of a perspective-taking exercise, to improve both empathy and reading comprehension, were approached indirectly in exchange for convenience; although the intervention used in the current study is not as thorough as perspective-taking exercises typically utilized to increase empathy in children, if a short and easy intervention could produce desirable moral and academic improvements, numerous students could reap these benefits within the constraints of the classroom.

Contrary to the hypothesis of this study, statistical analyses noted no significant difference between the perspective-taking and fact-based groups when evaluating change in empathy over the course of intervention. In addition, a measure of reading comprehension was used to evaluate if deliberate perspective-taking while reading a story would result in a greater improvement in reading

comprehension than students who participated in the fact-based assignment; no significant differences were found between groups. This discussion will explore a number of possible explanations for these disappointing results.

First, these results may indicate that the hypothesis of this study was wrong. Although former research has identified links between perspective-taking exercises and empathy, as well as perspective-taking and reading, it is possible that the act of perspective-taking in order to comprehend a reading passage, or while relating to another person, are two very different processes and are unrelated. Hoffman (2000) suggests in his research that perspective-taking takes different forms, depending on the focus of the task (focusing on one's own feelings in response to another, or another's feelings); it is entirely possible that this intervention explored two entirely separate forms, between which there is no link. However, while the simplest explanation for the lack of significant statistical results for this study seems to refute the link perspective-taking may provide between reading and empathy, it is important to consider other possible explanations before drawing conclusions.

One alternative explanation is that the lack of statistical support for the hypothesis of this study may have been due to a small sample size. This study was conducted in a small private school in central California, in which approximately 30 students were asked to participate in the study; only 17 provided parental consent. Consequently, the power for the statistical analyses was very low, which may cause what may have been statistically significant results to be dismissed as error. Although this does not automatically indicate that the intervention was more effective than it appeared, it entertains the possibility that the use of a perspective-taking intervention with a larger sample may have produced more promising results.

In addition, the small sample was also rather homogeneous; all participating students were from English-speaking families, most were Caucasian, and most were raised with varying degrees of Protestant Christian values. The classroom curriculum at the private school includes religious studies and often emphasizes the cultivation of positive relationships through various attributes that allude to or directly address sensitivity to the feelings of others and taking appropriate action in response. If an emphasis or even an expectation of empathy for others has influenced many of the students in this sample, the empathy measure may have been limited by social desirability or ceiling effects. It may even be possible that the sample of students who received parental consent to participate in the study were living in more empathetic home environments than those who did not participate, further specializing the sample; parents who gave permission to participate may have empathized with the graduate student conducting the study, or may have had a greater interest in activities that encouraged the development of empathy within their children than parents who did not give consent. Due to the unique and homogeneous qualities of this sample, the ability to generalize the results of this study to the general population is limited.

Another possible explanation for the results of this study may be that the intervention was effective, but was not implemented for enough time to demonstrate significant change. The focus of this study was on the ability to improve empathy in students through a perspective-taking intervention while reading in a setting that is influential in the lives of most children; however, the task of influencing lasting, noticeable character change is a mighty undertaking. The development of empathy within children and adolescents is influenced by multiple factors that are beyond the reach of a school-based intervention, such as

interactions with parents (Strayer & Roberts, 2004) or a child's level of ego resiliency (Strayer & Roberts, 1989). The intervention in this study was implemented approximately one or two times each week for 10 weeks in the students' language arts class. Therefore, the intervention was in place for only a small amount of the school year, and a relatively miniscule portion of the students' lives. It is not surprising that the intervention had such limited effects when executed for such a limited time.

Ironically, the convenience of this intervention, which would have been considered its greatest strength if the results had been more promising, may have been its greatest weakness. The goal of this study was to evaluate the effects of a brief, curriculum-related intervention to improve empathy, consequently allowing teachers or administrators to side-step costly and time-consuming alternatives and produce meaningful academic results as well. It is unclear, at this point, if the worksheets used in this study were the most effective way to connect the perspective-taking link between reading and empathy to which the reviewed literature alluded. The theory may be correct, but the exercise itself may not have engaged the students in the manner or depth of perspective-taking that promotes lasting changes in empathy and improves relationships with others. This was merely one attempt, out of many possible methods, to engage students in the process of taking another's perspective without unnecessarily burdening the teacher with time or resource demands.

A measure of reading comprehension was included in this study to further evaluate the usefulness of this intervention to students in a school setting. Although researchers have been able to identify a link between perspective-taking and reading comprehension, no studies evaluating the use of a perspective-taking intervention to boost reading comprehension were found. Therefore, this study

attempted to explore the untapped potential benefits of a perspective-taking reading intervention for both academic and social skills. Although successful interventions have been identified within research to directly address reading comprehension (Joseph, 2008), this study attempted to evaluate improvements to the students' reading comprehension indirectly, as an added benefit of a perspective-taking activity aimed at improving empathy. Unfortunately, no promising statistical results were found to link perspective-taking exercises to improved comprehension.

The relative brevity of the intervention may again contribute to these results. A student's reading comprehension depends on a great many things such as reading fluency, or exposure to vocabulary (Joseph, 2008). Therefore, a reading intervention that lasts only 10 weeks out of the many years the student has spent developing the skills to deeply comprehend literature may be insufficient. Again, a longer intervention may produce more desirable results.

Lastly, each student's work was evaluated for the "quality of work" that was invested in the assignment. This is a rather nebulous variable, as it is difficult to clearly evaluate whether each student's responses were a result of ability or effort. Evaluation of the "quality of work" was exclusively that of the researcher; a more sophisticated study may have included another rater with whom inter-rater reliability could be established to further support the ratings. Although it was expected that students who completed the tasks more thoroughly and accurately would glean more benefits from the intervention, resulting in higher empathy and reading comprehension scores, the statistical results clearly indicated that the "quality of work" score was not a significant predictor of empathy or reading comprehension scores.

The resulting question develops: If a similar perspective-taking intervention was used more frequently and for a longer period of time, would the perspective-taking become automatic over time and produce greater gains in empathy? A thoughtfully designed follow-up study may provide clearer insight to the role perspective-taking plays in the development of empathy, and if there is a connection to reading. An ideal study would investigate the same intervention, using the same measures, on a large, diverse sample of students to improve not only the statistical power, but the social validity of the exercise as well. If students were asked to complete the worksheets daily, responding to literature within the school curriculum, over a period of perhaps six months, it would be easier to identify if the students had “internalized” the exercises and had turned the daily practice of taking another’s perspective into a habit utilized in day-to-day interactions. In addition, measures of treatment integrity and a more refined method of evaluating the amount of effort students invest in the tasks would contribute to the reliability of the results.

When reviewing the outcome of the study in its entirety, the results do not look promising, but the limitations reviewed in this discussion may be resolved in a follow-up study. An intervention with a larger sample, implemented consistently for a longer period of time, may produce an increase in students’ empathy and reading comprehension. The theoretical basis for this study suggests that taking perspective of another individual, fictional or real, is related both to reading comprehension and empathy. If an intervention can be developed that is easily accessible to teachers, simple to implement, and effective to produce gains in academic skills while simultaneously promoting positive relationships with peers, numerous students may reap those benefits while doing little more than what is typically expected from them in the classroom. In addition, this



intervention can be produced for little cost and minimal time investment, which is essential when considering schools are often run with tight budgets and more tasks to accomplish than time in the school day. This study did not successfully demonstrate desirable results, and there is some risk that a similar study could end the same. Nonetheless, the research foundation of the study, and the potential long-term benefits for students, suggest that further exploration of the use of perspective-taking interventions to improve empathy and reading comprehension may be a worthwhile effort.

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## APPENDICES

APPENDIX A: PERSPECTIVE-TAKING WORKSHEET



Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Story Title:** \_\_\_\_\_ **Pages:** \_\_\_\_\_

*Briefly summarize what you read in the story:*

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*Pretend you are \_\_\_\_\_ in the story. Write a paragraph (at least 5 sentences) about the event(s) on page \_\_\_\_\_ from the perspective of the character:*

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## APPENDIX B: FACT-BASED WORKSHEET

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Story Title:** \_\_\_\_\_*Briefly summarize what you read in the story:*

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*Please answer these questions using information from the pages you read today:*

1. Who are the two most important characters in this story? Give one important fact about each:

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2. Describe the setting of the story:

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3. What events lead up to the conflict in this story?

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4. What is the main character's biggest conflict?

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5. How does the main character react to the conflict?

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APPENDIX C: BRYANT'S INDEX OF EMPATHY FOR  
CHILDREN AND ADOLESCENTS

NAME \_\_\_\_\_ BIRTHDATE \_\_\_\_\_ M F

**QUESTIONNAIRE**

**Directions:** Please answer every question on this questionnaire. It will ask you questions about how you feel about different things. Circle the answer that best describes how strongly you agree or disagree.

1. It makes me sad to see a girl who can't find anyone to play with.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

2. People who kiss and hug in public are silly.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

3. Boys who cry because they are happy are silly.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**  
    **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

4. I really like to watch people open presents, even when I don't get a present myself.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

5. Seeing a boy who is crying makes me feel like crying.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

6. I get upset when I see a girl being hurt.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

7. Even when I don't know why someone is laughing, I laugh too.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

8. Sometimes I cry when I watch TV.

<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>
very strongly disagree		disagree		neutral		agree		very strongly agree

9. Girls who cry because they are happy are silly.

<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>
very strongly disagree		disagree		neutral		agree		very strongly agree

10. It's hard for me to see why someone else gets upset.

<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>
very strongly disagree		disagree		neutral		agree		very strongly agree

11. I get upset when I see an animal being hurt.

<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>
very strongly disagree		disagree		neutral		agree		very strongly agree

12. It makes me sad to see a boy who can't find anyone to play with.

<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>
very strongly disagree		disagree		neutral		agree		very strongly agree

13. Some songs make me so sad I feel like crying.

<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>
very strongly disagree		disagree		neutral		agree		very strongly agree

14. I get upset when I see a boy being hurt.

<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>
very strongly disagree		disagree		neutral		agree		very strongly agree

15. Grown-ups sometimes cry even when they have nothing to be sad about.

<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>
very strongly disagree		disagree		neutral		agree		very strongly agree

16. It's silly to treat dogs and cats as though they have feelings like people.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

17. I get mad when I see a classmate pretending to need help from the teacher all the time.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

18. Kids who have no friends probably don't want any.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

19. Seeing a girl who is crying makes me feel like crying.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

20. I think it is funny that some people cry during a sad movie or while reading a sad book.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

21. I am able to eat all my cookies even when I see someone looking at me wanting one.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

22. I don't feel upset when I see a classmate being punished by a teacher for not obeying school rules.

**-4**      **-3**      **-2**      **-1**      **0**      **+1**      **+2**      **+3**      **+4**  
 very strongly      disagree      neutral      agree      very strongly  
 disagree

## APPENDIX D: SAMPLE AIMSWEB MAZE TASK



Jason and Max picked next Friday to carry out their special mission. Friday was a week away. They **(agreed, had, branches)** so many things to accomplish. In **(plan, order, at)** to reach their final goal, the **(next, branches, boys)** made a plan for each day **(to, of, each)** the week. They had to work **(hard, creek, big)** every day to finish each task. **(Pile, Could, Had)** they do it all?

On Monday, **(creek, big, they)** agreed to meet and put plan **(near, wood, A)** into action. Plan A was to **(gather, work, day)** as many fallen branches as they **(could, on, had)** carry. They hauled the wood from **(neat, a, the)** edge of the cornfield and stacked **(agree, it, they)** in a big pile at the **(plan, edge, hauled)** of the forest.

On Tuesday, the **(rocks, by, boys)** met near the lazy creek and **(put, climb, wood)** plan B into motion. They dug **(up, near, the)** rocks the size of footballs from **(and, night, the)** creek's bottom. By dusk, they had **(rode, arranged, to)** the rocks in a neat circle **(a, next, up)** to the pile of branches they **(their, found, had)** hauled the night before.

On Wednesday, **(plan, the, work)** C was to climb into the **(attic, umbrellas, they)** above Jason's garage. They searched around **(Max, in, with)** flashlights and both found backpacks. They **(spoke, under, wore)** their packs as they rode their **(without, bikes, garage)** to the edge of the forest **(to, end, for)** complete the day's work.

On Thursday **(they, it, work)** rained. They had to drop the **(up, plan, forest)** for the day. Still, Jason and **(went, backpack, Max)** met at the end of their **(bikes, driveways, on)** under umbrellas. They quietly spoke. They **(rained, decided, tent)** their mission would work without plan **(D, fire, was)**.

When the sun went down on **(only, Friday, evening)**, they met at the edge of **(the, out, and)** forest. There sat their tent. They'd **(stacked, tasks, set)** it up on Wednesday evening. The **(circle, special, wood)** was ready to go into their **(campfire, many, night)** ring. Their next step was to **(big, build, climb)** a warm fire.

The mission to **(camp, step, the)** out was complete. The only tasks **(Max, now, next)** were to sit back and enjoy **(a, the, ring)** fruits of their labor.

APPENDIX E: INFORMED CONSENT FORM

## INFORMED CONSENT FORM

California State University, Fresno  
School Psychology Program

### Reading and Empathy Study

Malerie Goodman  
Robert Levine, Ph.D.

Your child has been asked to take part in a research project described below. The researcher has explained the project to your child in detail. If you or your child have any questions, Malerie Goodman, the person mainly responsible for this study, will discuss them with you. Please feel free to contact her at [Malerie.E.Goodman@gmail.com](mailto:Malerie.E.Goodman@gmail.com) or at 661.703.1692.

### **Description of the project:**

Your child has been asked to take part in a study that investigates the relationship between reading and empathy, which is the ability to feel what another person is feeling. This study will investigate if deliberate perspective-taking with characters in a story, over a 6 week period, will increase empathy in middle-school students. Your child has been asked to participate in this study because he or she is in middle school and may benefit from this perspective-taking exercise. Approximately 25 students will participate in this study.

### **Procedures:**

If you decide to allow your child to take part in this study here is what will happen:

Your child will be randomly assigned to one of two groups. Each child will complete a questionnaire that will measure his or her initial level of empathy, as well as a short measure of reading comprehension. Depending on the group to which your child has been assigned, he or she will complete a specific worksheet in class. If your child is placed in one group, he or she will evaluate a story by writing a paragraph about an event in the story from the perspective of a character. If your child is placed in another group, he or she will answer five fact-based questions about the story. After 6 weeks of participation in this study, each child will complete the same

questionnaire to obtain his or her level of empathy and the reading comprehension measure.

Students will be expected to participate in this study each day they read a story from the curriculum. The Olive Knolls Christian School middle school language arts teacher, Mrs. Munden, will distribute the worksheets, and will collect them when the student is finished. Each of these worksheets will be completed during approximately 15 minutes of your child's language arts class from April 2010 through May 2010.

**Risks or discomfort:**

Your child will be exposed to no risk, and any discomfort anticipated from participation in this study will be minimal.

**Benefits of this study:**

Although there may be no direct benefit to some students, the researcher will learn more about the use of reading interventions to build empathy in children. Some students may improve their ability to take the perspective of others, which may improve social interactions.

**Compensation**

Students who participate in this study will be entered in a raffle for small prizes, to be conducted after the study is complete.

**Confidentiality:**

Your child's part in this study is confidential. The questionnaire and reading comprehension measure will identify your child by name, but will only be read and scored by Malerie Goodman. The language arts teacher will collect the worksheets in class, and they will be read and scored by Malerie Goodman. All records will be destroyed after data collection is complete.

**Treatments:**

No psychological or physical distress is anticipated from participation in this study. If your child experiences any distress from participation in this study, please contact Malerie Goodman for more information.

**Voluntary participation and withdrawal:**

Participation in research is voluntary. Your child has the right to refuse to be in this study. If your child decides to be in the study and changes his or her mind, he or she has the right to drop out at any time. Whatever your child decides, he or she will not lose any benefits to which he or she is otherwise entitled.

**Questions, Rights and Complaints:**

If you have any questions about this research project, please call Malerie

Goodman at 661.703.1692 or email at Malerie.E.Goodman@gmail.com.

If you have any questions or concerns about your child's rights as a research participant in this study, please direct them to Dr. Constance Jones at California State University, Fresno, Committee for the Protection of Human Subjects at (559) 278.4468.

**Parent/Legal Guardian Consent statement**

By signing this document, you consent that your child may participate in the Reading and Empathy Study being given by Malerie Goodman, a graduate student at California State University, Fresno.

This statement certifies the following: that you are the student's legal guardian, you have read the consent form, and all your questions have been answered. You understand that your child may withdraw from the study at any time and that he or she will not lose any of the benefits that he or she would otherwise receive by withdrawing early.

All of the answers your child provides to Malerie Goodman will be kept private.

You should know that you have the right to see the results prior to publication.

A copy of the informed consent will be given to you.

---

Signature of Parent/Legal Guardian

---

Typed/printed Name

---

Name of Student

---

Date

**APPENDIX F: STUDENT ASSENT FORM**

## Student Assent Form

I, \_\_\_\_\_, wish to participate in the Reading and Empathy Study being given by Malerie Goodman, a student at California State University, Fresno.

I agree that:

- I understand that this study will help Malerie Goodman understand more about empathy and perspective-taking, and I will complete a questionnaire and worksheets in class. I will read a story, and will either write a paragraph from the perspective of a character in the story, or will answer 5 fact-based questions about the story, depending on the group into which I'm placed.
- I have had the opportunity to ask questions about this study.
- All of my questions about this study have been answered.
- I understand that I am volunteering to participate, and I may choose to stop participating at any time.
- Any information I give to Malerie Goodman will be kept private.

\_\_\_\_\_  
Signature of student

\_\_\_\_\_  
Typed/printed name

\_\_\_\_\_  
Date

## APPENDIX G: SCRIPTED EXPLANATION OF THE STUDY



### **Scripted Explanation of the Study**

Good morning/afternoon! My name is Malerie Goodman, and I am currently a college student at Fresno State University. I am learning how to be a school psychologist, which means I will soon be working to help students become successful in school. This doesn't mean just getting good grades, but also learning how to have good relationships with other students as well.

One of my main interests is empathy, which is the ability to feel what another person is feeling. In order to have empathy, you first must have the ability to take the perspective of another person, or "put yourself in his shoes." This is something that happens naturally when you read a good book. So, what I am trying to figure out is if reading a good book and taking the perspective of the characters can help build levels of empathy in middle school students.

I am conducting a study, and I need your help. This is how it works: I am going to assign you to one of two groups. and you will complete a short questionnaire. Depending on the group in which you're placed, you will complete worksheets in class. If you are placed in one group, you will write a paragraph about an event in the story from the perspective of one of the characters. If you are placed in another group, you will answer five fact-based questions about the story. After ten weeks, you will complete the same questionnaire that you completed in the beginning of the study. Basically, every time you read a story in

class, you will complete one of these worksheets. They only take about 15 minutes. This study will take about ten weeks, so you will probably fill out about 20 worksheets.

Participation in this study involves no risk and very little discomfort (no more than just completing a school assignment). I will not tell anyone your scores on the questionnaires – all information you give to me will be kept secret. If you decide to participate, and then decide you don't want to participate anymore, you can quit at any time. Your participation will help me learn a lot more about empathy, and here's the best part: everyone who participates in the study will be entered in a raffle. At the end of the study, you have the chance to win some great prizes!

I am going to pass out two forms to you: a parent consent form and assent form. (Pass out forms). The parent consent form goes home with you, and your parents must sign this for you to participate in the study. The assent form is for you to sign if you would like to participate. If you would like to be part of this study, you must bring both signed forms back to your teacher by Friday, March 26th.

Does anyone have any questions?

# California State University, Fresno

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Malerie Elise Goodman

Type full name as it appears on submission

04/18/2011

Date