A children's mystery story with visual screening activities: A pilot study

Sarah Fox-Hocking
Pacific University

Suzanne Zamberlan
Pacific University

Recommended Citation
College of Optometry. 1474.
https://commons.pacificu.edu/opt/1474

This Thesis is brought to you for free and open access by the Theses, Dissertations and Capstone Projects at CommonKnowledge. It has been accepted for inclusion in College of Optometry by an authorized administrator of CommonKnowledge. For more information, please contact CommonKnowledge@pacificu.edu.
A children's mystery story with visual screening activities: A pilot study

Abstract
This pilot study reviews the effectiveness of a children's mystery story that incorporates visual screening activities within the plot. The book that was used in this study is Eye Can See You, The Secret of the Haunted Mansion, which was written by the authors of this study, Sarah Fox-Hocking and Suzanne Zamberlan. This study looks at the impact of this book on thirteen second, third, and fourth grade readers, both boys and girls. The children that were surveyed for this study provided helpful feedback to the authors about the effectiveness of having visual screening activities in this book and also judged the book’s readability. Each chapter of the book has interactive activities that provide a way to help screen a child’s visual capabilities, although the book is not intended to diagnose visual problems. The visual screenings incorporated into the storyline include suppression, visual memory, near visual acuities, visual figure-ground, visualization, problem solving skills, visual closure, and laterality. Parents and caregivers were advised to read the book with the child to ensure each activity was performed correctly. After the story, there is a section that lists possible results for each activity and what each result indicates visually. There is also a list of vision related websites at the end of the book for parents and caregivers to access if they have questions about their child's visual system. The results of this pilot study revealed that the seven boys and six girls who read the book enjoyed both the story and the visual activities. They found it interesting and understandable. Parents and caregivers also provided positive feedback about the book, the activities, and the parental resources.

Degree Type
Thesis

Rights
Terms of use for work posted in CommonKnowledge.
Copyright and terms of use

If you have downloaded this document directly from the web or from CommonKnowledge, see the “Rights” section on the previous page for the terms of use.

If you have received this document through an interlibrary loan/document delivery service, the following terms of use apply:

Copyright in this work is held by the author(s). You may download or print any portion of this document for personal use only, or for any use that is allowed by fair use (Title 17, §107 U.S.C.). Except for personal or fair use, you or your borrowing library may not reproduce, remix, republish, post, transmit, or distribute this document, or any portion thereof, without the permission of the copyright owner. [Note: If this document is licensed under a Creative Commons license (see “Rights” on the previous page) which allows broader usage rights, your use is governed by the terms of that license.]

Inquiries regarding further use of these materials should be addressed to: CommonKnowledge Rights, Pacific University Library, 2043 College Way, Forest Grove, OR 97116, (503) 352-7209. Email inquiries may be directed to: copyright@pacificu.edu

This thesis is available at CommonKnowledge: https://commons.pacificu.edu/opt/1474
A CHILDREN'S MYSTERY STORY WITH VISUAL SCREENING ACTIVITIES:

A PILOT STUDY

By

SARAH FOX-HOCKING

SUZANNE ZAMBERLAN

A thesis submitted to the faculty of the
College of Optometry
Pacific University
Forest Grove, Oregon
for the degree of
Doctor of Optometry
May 2004

Advisor: Dr. J.P. Lowery
About the Authors:

Sarah Fox-Hocking plans on graduating from the Pacific University College of Optometry in May 2004. She received her Bachelor of Science degree in Visual Science from Pacific University in 2001. She is currently a member of AOSA at Pacific University. Her future plans include opening a private optometric practice and specializing in vision therapy and perceptual testing.

Suzanne Zamberlan plans on graduating from the Pacific University College of Optometry in May 2004. She received her Bachelor of Arts degree in Journalism from the University of Oregon in 1992. She has been a member of AOSA, Amigos, and COVD while attending Pacific University. She plans on working with patients of all ages in a private or group practice on the west coast.
Abstract:

This pilot study reviews the effectiveness of a children’s mystery story that incorporates visual screening activities within the plot. The book that was used in this study is *Eye Can See You, The Secret of the Haunted Mansion*, which was written by the authors of this study, Sarah Fox-Hocking and Suzanne Zamberlan. This study looks at the impact of this book on thirteen second, third, and fourth grade readers, both boys and girls. The children that were surveyed for this study provided helpful feedback to the authors about the effectiveness of having visual screening activities in this book and also judged the book’s readability.

Each chapter of the book has interactive activities that provide a way to help screen a child’s visual capabilities, although the book is not intended to diagnose visual problems. The visual screenings incorporated into the storyline include suppression, visual memory, near visual acuities, visual figure-ground, visualization, problem solving skills, visual closure, and laterality. Parents and caregivers were advised to read the book with the child to ensure each activity was performed correctly. After the story, there is a section that lists possible results for each activity and what each result indicates visually. There is also a list of vision related websites at the end of the book for parents and caregivers to access if they have questions about their child’s visual system.

The results of this pilot study revealed that the seven boys and six girls who read the book enjoyed both the story and the visual activities. They found it interesting and understandable. Parents and caregivers also provided positive feedback about the book, the activities, and the parental resources.
Acknowledgments:

We would like to thank the following people who helped us complete this thesis:
- Dr. J.P. Lowery, our faculty advisor, for his guidance and helpful suggestions.
- Dr. Alan Reichow for helping us with our pilot study ideas and survey.
- Dr. Karl Citek for his quick thinking and excellent communication skills.
- Dr. Janet Leasher for her enthusiastic support of our ideas.
- The Beta Sigma Kappa organization for their generous financial support.
- Toni Cockreham, the illustrator of our book. Her beautiful drawings made the vision screening activities in our book come to life.
- Jeff Hocking and John Zamberlan, our husbands, for their caring and support of us during all of our endeavors.
INTRODUCTION:

The authors of this thesis study, Sarah Fox-Hocking and Suzanne Zamberlan, wrote a children's book with visual screening activities and wanted to see how their intended audience reacted to the book. The target audience is boys and girls in the second, third, or fourth grade. The authors gave their book, an informed consent form, and a survey to each reader asking him or her to read the book, do the activities, and then answer the questions on the survey.

The authors hoped that both the story and the activities would be interesting and helpful to children. The storyline in the book is a mystery story involving three girls and two boys. One of the girls is the main character and is hyperopic (far-sighted) but refuses to wear her glasses. One of the boys is the antagonist who teases her about wearing glasses. The boys dare the girls to go to a haunted mansion in town one day after school. The boys end up trapped in the mansion and the heroine of the story saves them by using her glasses to read a map of the house. At the end of the story, all five of the characters are friends and the main character is happy about wearing her glasses.

The visual screening activities in the book are in almost every chapter of the book. Each activity has a description to the reader about what to do and at the end of the book, there are guidelines for parents and caregivers about how children should perform on each test. For children that do not perform as expected, there is a list of websites and resources for the parents to contact for further information. The book is very specific in noting that it is not a comprehensive visual test, rather it is only a screening tool and each parent should have his or her child examined by an optometrist.

The visual screenings incorporated into the storyline include suppression, visual memory, near visual acuities, visual figure-ground, visualization, problem solving skills, visual closure, and laterality. An example of one of these tests is the figure-ground page. The heroine of the story is pictured in a room that contains many different objects including a bookcase, pictures on the walls, a desk, papers, items found in a library or den. The instructions to the reader state: Can you help Maggie find the three things she will need to find a way out of the room? (HINT: She will need a flashlight, a map, and her glasses.) The reader then has to find those three items among all of the other items in the room, much like finding objects in a "hidden picture". By finding these objects, a reader demonstrates the ability to separate figures from a background, known as good figure-ground skills. The other activities are similarly woven into the storyline in the author's attempt to make them not seem like a test to the readers.

A copy of the book, Eye Can See You. The Secret of the Haunted Mansion, is available in Dr. J.P. Lowery's office at Pacific University College of Optometry, Forest Grove, Oregon.
METHOD USED:

The method used to study the target audience of boys and girls in the second, third, or fourth grade was a pilot study. The authors opted for this method because each child had to be able to take the book home for a minimum of one night, read it with his or her parents, and answer a survey. The authors knew this would be a time consuming process for each subject and therefore wanted to get the maximum exposure for the book in a minimal amount of time. The authors wanted ten to fifteen children to read the book and answer the survey questions and hoped to get a fairly even number of boys and girls as subjects. The authors contacted friends, co-workers, and school teachers and asked them to distribute the book and the survey to children they knew. Each child and parent read and signed the informed consent form and filled out the survey.

The nine survey questions for the children had three main categories: did the reader enjoy the story, did he or she understand and enjoy the visual activities, and what suggestions would he or she make about the book as a whole. Under the heading of enjoying the story, the four questions asked were: did the reader enjoy the book's characters, did he or she find the story interesting, was the reader able to relate to any of the characters in the story, and did he or she learn about other cultures while reading. The visual activity questions were: did the reader enjoy doing the activities in the book and were the instructions for each activity understandable. The remaining three questions asked: would the reader recommend this book to a friend, was there anything reader would have liked to see in the book, and finally was there anything he or she did not like about the book.

There were also three additional optional questions for parents and caregivers. There were: were the explanations about the tests understandable, was the list of websites and parental resources helpful, and was their child engaged while reading the story.

RESULTS: The survey results, boys, girls, and parents

The authors separated the survey results into three categories: boys, girls, and parents. Seven boys, ages 7 to 9, read the book, with the mean age being 9 years old. Six girls, ages 7 to 10, read the book, with the mean age again being 9 years old. Only six parents answered the optional questions at the end of the survey.

The results from the four questions dealing the storyline of the book are as follows:

<table>
<thead>
<tr>
<th>Question</th>
<th>Boys</th>
<th>Girls</th>
<th>2 unsure</th>
<th>1 unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you enjoy the book's characters:</td>
<td>7 yes</td>
<td>6 yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you find the story interesting:</td>
<td>7 yes</td>
<td>6 yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were you able to relate to the characters in the book:</td>
<td>3 yes</td>
<td>4 yes</td>
<td>2 unsure</td>
<td>1 unsure</td>
</tr>
<tr>
<td>Did you learn about other cultures by reading the book:</td>
<td>4 yes</td>
<td>3 yes</td>
<td>2 no</td>
<td>2 no</td>
</tr>
</tbody>
</table>

1 unsure 1 unsure
The results from the two questions about the visual activities are as follows:

Did you enjoy doing the visual activities in the book: Girls: 6 yes  Boys: 7 yes
Were the instructions for the activities understandable: Girls: 6 yes  Boys: 7 yes

The results from the readers suggestions about the book are as follows:

Would you recommend this book to a friend: Girls: 5 yes  Boys: 6 yes  1 unsure  1 unsure
Was there anything you would like to be in the book: Girls: 1 yes  Boys: 2 yes  3 no  3 no  2 unsure  2 unsure
Was there anything you did not like about the book: Girls: 6 no  Boys: 1 yes  6 no

The results from the optional questions for the parents and caregivers are as follows:

Were the explanations about the visual activities understandable: 6 yes
Was the list of websites and resources helpful: 5 yes  1 no
Was your child engaged while reading this story: 6 yes

DISCUSSION:

Regarding the story itself, the readers overall seeming to enjoy it. All of the children surveyed said that they enjoyed the story and the characters in the book. The authors of the book were pleased to receive these results as this was their first attempt at writing a children's book. More girls than boys found it easier to relate to the characters in the book which is understandable since the main character was a girl. The question about relating to other cultures was in reference to the first chapter of the book when the children participate in a sharing family cultures day at school. Slightly more boys than girls said that they felt like they learned about other cultures while reading and two of each group said no, they did not feel like they learned about other cultures.

The visual activities in the book received positive results from all thirteen boys and girls surveyed. They all said that they enjoyed doing the interactive visual activity pages and that the instructions were understandable. Anecdotally, many of the parents who turned the survey in to the authors said that their child wanted to keep doing the interactive pages over and over again.

The remaining three survey questions that dealt with recommendations and suggestions received not only yes or no answers but also some interesting ideas from the readers. Most boys and girls said that they would recommend this book to a friend. Only one boy and girl said that they were unsure about making a recommendation. Most of the readers were either unsure or did not think there was anything they would have liked to see added to the book. Three children however, did have suggestions about ideas they would like to see incorporated. One girl said that there should be monsters in the haunted house, one boy said there should be more pictures - one on every page, and the remaining boy said that he would like to see a color vision test in the story.

Only six of the parents answered the optional questions at the end. All of these parents found the explanations at the end of the book understandable. Each explanation had a
paragraph that stated what the activity was testing and the expected results. Five of the parents found the list of websites and resources helpful, one parent said that they were not helpful but added that she had not been able to look at any of them. The last question about whether or not the parents thought their child had been engaged while reading the story brought forth the most comments. All of the parents reported that yes, their child had enjoyed the book. The positive comments the authors received are that one parent liked the interactive pages, another said that although she had not had the opportunity to read the story with her nine year old son that he had reportedly enjoyed it, and another parent said that her son wanted to tell his teacher that he loved the book. Some of the less positive comments were that one parent felt that although the story was good, some of the words were hard for her eight year old boy to understand, and another parent thought that her seven year old girl had enjoyed the book more than her nine year old boy.

Overall, this children's mystery story with visual screening activities received positive reactions from the thirteen children who read it. The authors enjoyed writing the story and seeing their work evaluated by youngsters, it was a very rewarding experience.