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Portrayal of agriculture in children's literature: Contemporary stories in picture books, traditional tales, and nonfiction

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Abstract

The purpose of this research was to analyze the representations of modern American farming in traditional tales in picture book format, storybooks with contemporary settings, and non-fiction literature to assess how accurately agriculture information is provided to children. This project will contribute to the knowledge base about how well children's books are compensating for the lack of first-hand experience. The four hypothesizes studied were: 1. Ninety percent of storybooks with contemporary settings will depict a male in the role of farmer. 2. One hundred percent of traditional literature in picture book format will depict a farmer wearing bib overalls, straw hat or present other outdated and/or stereotyped portrayal of farmers. 3. Ninety percent of the storybooks with contemporary settings will have current farm machinery. 4. Eighty percent of the non-fiction text will provide modern agriculture information. Thematic tables were created for each genre based on machinery, buildings, farming methods, gender and attire of farmers, and livestock. Literature was chosen by using Children's Core database, and then collected using interlibrary loan. Ten to fifteen titles were chosen for evaluation. The researcher examined the pictures in the three genres, and determined if they were stereotyped or accurate based on the themes. The study found that picture books with a contemporary setting and traditional literature in picture book format had the most stereotypical images. Nonfiction had the most accurate images.

PORTRAYAL OF AGRICULTURE IN CHILDREN'S LITERATURE:
CONTEMPORARY STORIES IN PICTURE BOOKS, TRADITIONAL TALES, AND
NONFICTION

by

Kathryn S. Koller

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This Research Paper by: Kathryn S. Koller

Titled: Portrayal of Agriculture in Children's Literature: Contemporary Stories in Picture Books, Traditional Tales, and Nonfiction

has been approved as meeting the research requirement for the

Degree of Master of Arts.

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Date Approved   Graduate Faculty Reader

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Date Approved   Graduate Faculty Reader

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Date Approved   Head, Department of Curriculum and Instruction

ABSTRACT

The purpose of this research was to analyze the representations of modern American farming in traditional tales in picture book format, storybooks with contemporary settings, and non-fiction literature to assess how accurately agriculture information is provided to children. This project will contribute to the knowledge base about how well children's books are compensating for the lack of first-hand experience. The four hypothesizes studied were:

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Thematic tables were created for each genre based on machinery, buildings, farming methods, gender and attire of farmers, and livestock. Literature was chosen by using Children's Core database, and then collected using interlibrary loan. Ten to fifteen titles were chosen for evaluation. The researcher examined the pictures in the three genres, and determined if they were stereotyped or accurate based on the themes.

The study found that picture books with a contemporary setting and traditional literature in picture book format had the most stereotypical images. Nonfiction had the most accurate images.

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CHAPTER 1

INTRODUCTION

Children have a meager idea of where food comes from. One fourth grader in school responded with 'an egg carton' when asked where eggs come from initially (Marlow, 1998, p. 1)

"The agricultural industry directly affects all persons, whether or not they realize it,

through the food they eat and the clothing they wear" (Weiner, 2002, p. 5). Americans'

understanding of agriculture has decreased over time along with an accurate image of a farmer

and farms. Weiner adds, "As the family farm faces decline and urban sprawl becomes more and

more of a problem for many areas, it is becoming increasingly common to see less and less focus

on and concern about agriculture" (p.5). In the famous speech made by Paul Harvey at the 1978

Future Famers of America National Convention, he stated,

> And on the eighth day, God looked down on his planned paradise and said, *I need a caretaker.* So God made a farmer. God said, *I need someone willing to get up before dawn, milk cows, work all day in the field, milk cows again, eat supper, then go to town and stay 'til midnight at a meeting of the township board.* So God made a farmer. (Harvey).

The words of Paul Harvey still hold true today, but the role of a farmer and makeup of a

farm have evolved over time. Farming has gone through many transitions over the years. It all

began with all labor being done by hand to horse and plow and evolved into tractors. In addition

to updated machinery, today science and technology play a larger role in agriculture (B.J. Koller,

Agriculture Instructor; personal communication, September 20, 2012). Also according to Weiner

(2002), "agriculture today includes a vast array of different areas from business to journalism to

veterinary science" (p.5). Another change to agriculture is women taking on a greater role in

decision-making. "Over the past 50 years, women have increased their participation in male-

dominated roles" (Diekman, 2004, p. 374). In the 21st Century, more women are making

agriculture their career choice. According to United States Department of Agriculture (USDA) 2007 census, "more than thirty percent of U.S. farm operators are women" (para. 2). Sirekis (2012) states, "there were 1,400 more men in agriculture education than women in 2004, but by 2008 the numbers are equal" (para. 9). She also asserts that the number of women farmers has increased by 19% since 2002. In 70 land grant universities' agriculture programs, women outnumbered men by 2,900 students (para. 8).

Gender is not the only change to farmer demographics, so is age. According to the 2007 USDA Census of Agriculture, *Farmers by Age,* data indicated that the average age of farmers was between 50 and 60 years of age. It showed a major decline in the number of farmers who were 34 years old or younger. Stewart Truelsen's (2012) writing about the 1940 census, stated, "The population of the United States was 132.2 million then with a little more than 5 million being farmers, and by the 2010 census the population doubled to 308.7 million with only 751,000 being full-time farmers" (para. 4). Farm Bureau's Voice of Agriculture Fast Facts states, farmers are expected to produce 262 percent more food today than in 1950.

Research Problem

"There are over 285,000,000 people living in the United States, and of that population, less than 1% claim farming as their occupation" (EPA, 1998. para. 1). "Only about 30% of children in public schools live in rural America" (The Rural School and Community Trust, 2009, para.1). Agriculture today goes beyond the farm, therefore "it is highly likely many students will eventually be involved in some aspect of agriculture whether it's production, marketing, business, or any one of a number of possibilities" (Weiner, 2005 p. 5). Children's exposure to agriculture is often limited to learning from children's literature and the educational information they receive from their parents and the media. Marshall (1998) stated, "picture books bridge the

known to the unknown" (p. 194). Therefore, in order for children to have an accurate understanding of farming and farm life, the portrayal of agriculture in modern literature needs to be accurate. "Literature written for children on farming should have accurate content, it might be good to read, but if its not accurate it is considered history" (Marlow, 1998 p. 1). This research will consist of an analysis of the representation of modern American farming in traditional literature in picture book format, contemporary stories in picture books, and non-fiction agriculture texts to ensure children are being exposed to accurate agriculture information and are learning. By examining books within categories, the unique characteristics of each type of literature are accounted for in the treatment of agriculture themes.

When "literature is written on farming it guides pupils to extend their horizons" (Marlow, 1998, p. x). "Rural representation in picture books is a decidedly smaller domain than policy or educational research, but one that is perhaps equally relevant in the everyday life of a child" (Eppley, 2010, p.1).

Hypotheses

1. Ninety percent of storybooks with contemporary settings will depict a male in the role of farmer.

2. One hundred percent of traditional literature in picture book format will depict a farmer wearing bib overalls, straw hat, or present other outdated and/or stereotyped portrayals of farmers.

3. Ninety percent of the storybooks with contemporary settings will have current farm machinery.

4. Eighty percent of the non-fiction text will provide modern agriculture information.

Agriculture is an important aspect of American life and economics. Increasingly, fewer children experience this way of life first hand. Urban students, in particular, grow up with little opportunity to see where their food is produced. "In fact, urban schools increasingly are using agriculture education to reconnect their students to the idea that food is grown and raised-a foreign concept to many children who believe fruits and vegetables magically appear on the supermarket shelves" (Black, 2008, 42). This study will contribute to the knowledge base about how well children's books are compensating for this lack of first-hand experience.

Limitations

This study will include traditional tales in picture book format, picture storybooks with contemporary settings, and nonfiction books with agricultural themes or settings published after 1997. The study was limited by the researcher's ability to access texts for examination.

Definitions

Modern Agriculture: "innovative practices and growing techniques to produce enough food, fuel and fiber for a growing world, while minimizing their environmental footprint at the same time." (CropLife America, n.d., para. 1).

CHAPTER 2

LITERATURE REVIEW

Introduction

The purpose of this research is to analyze representations of modern American farming in traditional tales in picture book format, storybooks with contemporary settings, and non-fiction literature to assess how accurately agriculture information is provided to children. This project will contribute to the knowledge base about how well children's books are compensating for the lack of first-hand experience. Children can gain new understandings from reading about the world around them and of their gender role in society. The literature review will consist of the effects of gender stereotyping on young readers, the representation of agriculture in picture books, and the importance of agricultural literacy.

Gender Stereotyping

A picture book opens the door to the unknown for a young reader. It can demonstrate to children how their gender is expected to act in society and what is socially acceptable. "Picture books have a particular influence on gender identities because they are viewed at a time when children are in the process of developing their own individual identities" (Tsao, 2008, p.109). According to Tsao, gender bias occurs today just as much as in did in the past. Tsao also stated that "the characters and situations in books introduce children to what the world may look like through others' eyes and offer opportunities for children to further construct their own views of self and the world" (pp.108-109). "Gender bias in books matters-that stereotyped portrayals of the sexes and underrepresentation of female characters contribute negatively to children's development, limit their career aspirations, frame their attitudes about their future roles as

parents, and even influence their personality characteristics" (Hamilton, Anderson, Broaddus, & Young, 2006, p. 757).

Stories children read shape and alter their understanding of the world in which they are living (Diekman & Murnen, 2004, p. 373). Diekman and Murnen examined the imbalance of gender roles in children's literature particularly in areas where women are beginning to evolve in male-dominated fields. In this study, forty individuals each read a book and then completed a questionnaire to rate the books on stereotyping of characters personality, domestic careers, and leisure roles. The books were pre-determined through reviews as sexist and nonsexist. Before they began, they classified female-dominated roles as passive and traditionally domestic. They expected nonsexist literature to show women in male-dominated roles, but not males in female-dominated areas, even though in real-life men are also beginning to enter female-dominated roles. They found that the literature considered nonsexist portrayed women in masculine roles, but not men in feminine roles. When looking at sexist books they expected to see more of an inequality among masculine and feminine characteristics as compared to the nonsexist books. The portrayal of female characters and their inclusion in children's literature allow girls to reflect on their value in society.

Hamilton et. al. (2006) studied 200 top-selling picture books to test their hypotheses that there would be fewer female characters, the sex of the author would relate to the sex of the characters, and female characters would be portrayed in stereotypical roles. They found that females were under-represented even in modern children's literature. For example, in terms of the main character, there were 43 more male characters than female characters, and 33 more male character names in titles. They also found that male authors tended to use male characters more than female characters. They found women characters to be portrayed in a nurturing

manner and were often found to be indoors. Hamilton et. al. looked at 23 female adult characters, and out of those, 21 had a traditional role. Through their study, they found that it did not matter if the book was popular or a prize-winning book, gender-stereotyping still occurred.

Agricultural Literacy

"These students, who are future decision making citizens, must realize the impact their decisions will have on agriculture and ultimately their health and the health of the environment" (Reidel, Wilson, Flowers, & Moore, 2007, p. 3). The study conducted by Reidel et al. examined the influence of an introductory agricultural course on urban high school students' agricultural literacy. The population was limited to 135 students, who were enrolled in the Fall 2005 semester in agriculture education. Of the 135 students 75 were male and 60 were female. Only 7% of the participants lived on a farm. Participants were given a pre-test at the beginning of the semester in August. The test was divided into three sections. The first two portions asked questions regarding their knowledge and perceptions of agriculture literacy. Questions covered literacy areas such as careers, policy knowledge, general knowledge, and environmental knowledge. The third section of the test asked background knowledge questions to assess the participants' understanding of agriculture. After taking the introductory to agriculture course students were given a post-test; their results revealed a need for agricultural courses and an adaptation to these courses in order to meet the needs of a more urbanized population.

Students are becoming more urban and more removed from the agriculture industry. Therefore, it is important for misconceptions to be addressed, and one of those misconceptions is pest-related science. Technology applications are expanding into many areas of agriculture. "To assess the trade-offs of pesticides and Genetically Mortified Organisms [GMOs] in terms of human health and safety of the environment, individuals need to possess a basic understanding of

scientific and technological principles; acquiring such understandings begins at a very young age" (Trexler, 2000, p. 89). The purpose of Trexler's study was to determine if elementary students' understandings of "pests, crop protection, and the impacts of using pesticides on crops" (p. 90). The researcher conducted interviews with a selected group of nine highly fluent elementary school students. Interviews took 45 minutes with 5 minutes of that being spent on learning about the students' background in agriculture. From those interviews, researchers concluded that these students lacked the language to convey an understanding of agriculture, especially pesticides and production. They found that students did not have personal experience with agriculture, as young people might have had in prior generations.

"As one becomes literate, he or she masters the ability to make judgments based on culturally-based norms that reify or reshape the culture and its institutions; agriculture is a culture unto itself" (Meischen & Trexler, 2003, p. 43). The purpose of Meischen and Trexler's study was to determine elementary students' understandings of agricultural education, specifically meat and livestock. They interviewed seven students from Midwestern schools. These students had some background knowledge regarding agriculture, and most lived in a rural area where they themselves lived on a farm or knew someone who did. The interview was conducted in two parts. Questions used for the interview were based on the benchmarks under the concept, "What is Agriculture?" The first part involved participants mapping out the journey of a hamburger to a popular fast food chain. After this interview, the researcher compiled information gained from the interview. A second interview was then conducted to ensure credibility of the findings. Several benchmarks were evaluated, with students' understanding depending on their background knowledge of the benchmark concept. Students were able to classify which products came from plants or animals. They, however, had misconceptions

regarding the makeup of farms today. Many were under the impression that most farmers still raised multiple species instead of specialized large-scale farming. Students had only a miniscule understanding of the environment and the facilities that housed livestock, despite their rural locale and rural connections.

The purpose of Frick, Kahler, and Miller's (1991) investigation on agricultural literacy "was to develop a document that could provide educators with the agricultural concepts that every United States (U.S.) citizen should know" (Frick, et al. 1991, p. 49). Frick, et al. state "a person should be able to communicate and understand the economic impact of agriculture, its societal significance, and agriculture's important relationship with natural resources and the environment" (p.52). They focused on three objectives: the definition of agricultural literacy; subject areas under the umbrella of agricultural literacy, and concepts every U.S. citizen should know. Letters were sent to faculty and staff to ask for nominations of people who had an interest in agricultural literacy. The faculty and staff nominated 147 panelists. Of the 147, only 100 participated in the study with the majority being male. The panelists either were either involved in or had a background in agriculture. They were given two questionnaires. The first asked for their definition of agricultural literacy. After compiling the answers, the researchers wrote a definition of agricultural literacy. Their definition identified eleven subject areas:

> agriculture's important relationship with the environment, the processing of agricultural products, public agricultural policies, agriculture's important relationship with natural resources, production of animal products, societal significance of agriculture, production of plant products, economic impact of agriculture, the marketing of agricultural products, the distribution of agricultural products, and the global significance of agriculture (Frick et al, 1991, pp. 54-55).

These areas were used for the second survey and participants were asked to react to the subject areas and their sub-areas. Frick et. al. (1991) narrowed down the concepts generated in

these eleven areas from 590 concepts to 394 by eliminating duplicates and combining related concepts. These eleven areas and sub-areas define agricultural literacy and should be used as the curriculum to educate our students about agriculture. "Agricultural literacy describes the understandings and knowledge necessary to synthesize, analyze, and communicate basic information about agriculture" (Frick, 1991 p. 54). These eleven areas and sub-areas should not only be used for secondary education, but also in children's literature to prevent misconceptions.

<div align="center">**Summary**</div>

Children learn from first hand experience, observation, and reading. Prior research has indicated that gender stereotyping in children's literature has an effect on how children see themselves in society. Research on the portrayal of agriculture in children's literature is often encompassed under one term, children's literature. This research will examine three genre types, namely, traditional literature in story book format, story books in contemporary settings, and nonfiction agricultural text. The accurate portrayal of agriculture in literature is important because children have misconceptions about the origin of their food, and as the exposure to agriculture in children's lives continues to decrease, literature may become their main source for learning about agriculture.

CHAPTER 3

INTRODUCTION

The purpose of this research was to analyze the representations of modern American farming in traditional tales in picture book format, storybooks with contemporary settings, and non-fiction agriculture literature to assess how accurately agriculture information is being portrayed to children. The research will contribute to the knowledge base about how well children's books are compensating for the lack of first-hand experience. Children can gain new understandings from reading, understandings about the world around them, and of their gender role in society.

Research Design

The method used for this study was quantitative content analysis. "This method was originally developed to analyze texts such as journal articles, newspapers, books, responses to questionnaires, and transcribed interviews" (Spurgin & Wildemuth, 2009, p. 297). There are two basic units within content analysis, sampling and recording units. (as cited in Spurgin & Wildemuth, 2009). "Recording units are straightforward"(Spurgin & Wildemuth, 2009, p. 299). Recording units were appropriate for this particular research because it consisted of examining the agricultural illustrations in storybooks with a contemporary setting, nonfiction text, and traditional tales in picture book format with an agriculture basis. In order to record the findings, tables were created for each genre. Themes included but were limited to buildings, grain storage, animal housing, equipment, tractors, animals, gender and clothing farmer(s), and farming methods.

Book Selection

Books were selected by using Children's Core Collection Database. This database indexes literature appropriate for preschool through sixth grade. It provided fiction and nonfiction, story collections, and magazines. The three recommendation levels, most highly recommended (narrowest), core collection, and supplementary titles (broadest) were used to broaden or narrow the search as needed to arrive at a manageable number of texts. The Core Collection level was used first for each genre. When the selection of material yielded too few titles the search was expanded by using supplementary title, however when Core level yielded too many titles, the researcher used the most highly recommended narrowing it. The following terms were used as keywords to find appropriate literature, agriculture, farming, tractors, machinery, farmers, traditional, folklore, and country. The terms where used in combination and by themselves. The search was limited to books and a publication or reprint date of 1997 or newer because there were a few nonfiction books that portrayed agriculture accurately.

At least ten to fifteen books were selected for each genre, as seen in Table 1 for the list of selected books for each genre. The researcher used SILO to find local libraries that owned the selected books. Texts were borrowed locally or via interlibrary loan for examination.

Table 1
Books Selected for Each Genre

Storybooks with a Contemporary Setting	Traditional Tales in Storybook Format	Nonfiction Agricultural Literature
Little Elephants	Christmas Day	What Now Kerbie?
Farm Flu	Old MacDonald Drives a Tractor	Fun Facts About Farm Crops
Serious Farm	Moo, Moo, Brown Cow, have You any Milk?	Farm ABC
Grandpa's Tractor	Mary had a Little Lamb	My First Book About Farms
Red Fox at McCloskey's Farm	The Farmyard Jamboree	A True Book About Wheat
A Cow's Alfalfa-Bet	Mary and her Little Lamb	Working on the Farm
Farmer Cap	I Know a Wee Piggy	Earth Movers: Tractors
Otis	Animal Folk Tales of America: Paul Bunyan..	Farm Machines at Work: Milking Machines
Molly's Organic Farm	Jo MacDonald Saw a Pond	Farm Machines at Work: Combines
Tremendous Tractor	Barnyard Slam	Farm Machines at Work: Plows
Crash Bang Donkey	Wilber's Adventure: A Charlotte's Web Picture Book	Farm Machines at Work: Tractors
Tractor Day	The Little Red Hen	Fall Harvest
Farmer Ham	The Cazuela That the Farm Maiden Stirred	Life on the Farm: Farms Old and New
Tractor Mac Saves Christmas		From Grass to Milk
		Community Helpers: Farmers

Book Analysis

After the books were chosen and collected, they were classified into the three genres, storybooks with a contemporary setting, nonfiction agriculture texts, and traditional tales in storybook format. Storybooks with a contemporary setting were evaluated for their gender depiction of a farmer and clothing. Evaluation of machinery illustrations was also included. These illustrations were categorized into multiple row planters and combines, tractors equipped with technology, rubber or tracks for wheels, and tractors with and without cabs. Nonfiction literature was evaluated for the portrayal of modern agriculture, according to the definition of modern agriculture provided by CropLife America. The evaluation of traditional literature in picture book format was on the stereotyped portrayals of farmers. These stereotypes included farmers wearing bib overalls, straw hat without a brim, and any other outdated portrayals of a farmer. A data analysis table with common agricultural themes was created for each genre (see Appendices A, B, and C). The tables were used to tally how often accurate and stereotypical illustrations occurred within the themes. Each genre's findings were summarized in a tabular format (see Table 2 through 7). The analysis of each genre was reported in chapter four.

CHAPTER 4

RESULTS

The researcher conducted a quantitative content analysis by keeping a tally of the of the following themes, buildings, grain storage, animal housing, equipment, tractors, animals, gender and clothing of farmer(s), and farming methods, as they occurred throughout the three types of literature. Storybooks with a contemporary setting were evaluated for their gender and clothing depiction of a farmer, and current machinery illustrations. Machinery was categorized into multiple row planters and combines, tractors equipped with technology, rubber or tracks for wheels, and tractors with and without cabs. Nonfiction literature was evaluated for the portrayal of modern agriculture, according to the definition of modern agriculture provided by CropLife America. The evaluation of Traditional literature focused on the stereotyped portrayals of farmers. These stereotypes included farmers wearing bib overalls, straw hat without a brim, and any other outdated portrayals of a farmer.

Findings

Books were evaluated to support or refute the following hypotheses:

1. Ninety percent of storybooks with contemporary settings will depict a male in the role of farmer.

2. One hundred percent of traditional literature in picture book format will depict a farmer wearing bib overalls, straw hat, or present other outdated and/or stereotyped portrayals of farmers.

3. Ninety percent of the storybooks with contemporary settings will have current farm machinery.

4. Eighty percent of the non-fiction text will provide modern agriculture information.

A summary table was created for each genre. Titles were placed in the stereotypical or accurate column under each theme. For each genre a table was created to show the gender of farmers portrayed to show the male to female ratio for each genre.

Farmer Gender in Picture Books with a Contemporary Setting

There were 36 farmers depicted, and out of those 27 (75%) of them were male. This is less than the ninety percent hypothesized. Four of the eleven depicted more than one male in the role of farmer. However, nine (25%) of the 36 farmers pictured, were female. Table 2 summarizes findings related to gender for picture story books in a contemporary setting. Hence, Hypothesis 1 is not supported by the data collected.

Table 2 Gender of Farmers in Picture Books with a Contemporary Setting

Gender Role Portrayed	Picture Books with a Contemporary Setting	$n=$
Male	Serious Farm; Little Elephants; Crash Bang Donkey; Grandpa's Tractor; Farm Flu; Farmer Ham; Molly's Organic Farm; Tractor Day; Red Fox at McCloskey's Farm; Farmer Cap; Otis	27
Female	Little Elephants; Farm Flu; Molly's Organic Farm; Tractor Day; Otis	9

* $n=$ number of illustrations

Pictures in storybooks with contemporary settings were analyzed and classified as stereotypical or accurate based on these categories: machinery, dress of farmer, farming methods, livestock, farmhouse, and buildings. Table 3 displays the occurrences of these themes.

Table 3: Summary of Picture Books with a Contemporary Setting

Themes	Titles with Stereotyped Illustrations	*n=	Titles with Accurate Illustrations	*n=
Machinery				
Antique Tractor	Tractor Mac Saves Christmas; Farmer Cap; Otis	3	Grandpa's Tractor;	1
Tractor with Cab	Tremendous Tractors	12		
Tractor with Roll over Protection (ROP)				
Tractor without Cab	A Cow's Alfalfa-Bet; Farmer Ham; Serious Farm; Grandpa's Tractor; Tractor Day; Otis	6		
Combine	Tremendous Tractors; Little Elephants;	2		
Planter				
plow	Tremendous Tractors; Grandpa's Tractor;	2		
Disc	Tremendous Tractors	1		
Wagon	Tremendous Tractors; Farmer Cap	2		
Production Specific	Tremendous Tractors;	4	Molly's Organic Farm; Farmer Cap	6
drill	Tremendous Tractors; Grandpa's Tractor;	2		
mower	Tremendous Tractors	1		
bailer	Tremendous Tractors	1		
silage				
Cultivator	Tractor Day	1		
Horse and Plow				
Sprayer				
Manure Spreader				
Semi				
Straight Truck	Tractor Mac Saves Christmas	1		
Dress of Farmer				

Overalls	Crash Bang Donkey; Farmer Ham; Serious Farm; Little Elephants; Tractor Day; Otis	16	Grandpa's Tractor	1
Straw hat with a brim	Serious Farm; Otis	4	Grandpa's Tractor; Molly's Organic Farm;	8
Flannel shirt	Serious Farm;	1	Grandpa's Tractor	2
Male in Coveralls				
Aprons	Tractor Day	1		
Bonnet	Tractor Day	1		
Long dresses	Tractor Day; Otis	3		
Pants/ Jeans	Grandpa's Tractor	1	Little Elephants; Molly's Organic Farm; Farmer Cap	8
Female in Coveralls				
Casual Clothing			Farm Flu; Red Fox at McCloskey's Farm, Molly's Organic Farm; Farmer Cap	8
Farming Methods				
Milking by hand				
Milking Machine				
Livestock				
Chickens	Farm Flu; Serious Farm;	2	A Cow's Alfalfa-Bet; Crash Bang Donkey; Red Fox at McCloskey's Farm; Grandpa's Tractor; Tractor Day;	4
Goats	Farm Flu; Serious Farm;	2	Tractor Mac Saves Christmas; Crash Bang Donkey;	2
Sheep	Farm Flu; Serious Farm;	2	Tractor Mac Saves Christmas; Crash Bang Donkey;	2
Swine	Farm Flu; Serious Farm; Tractor Day	3	Crash Bang Donkey;	1
Cattle	Farm Flu; Serious Farm;	2	Tractor Mac Saves Christmas; A Cow's Alfalfa-Bet; Crash Bang Donkey;	5

			Grandpa's Tractor; Tractor Day;	
Harvesting				
Picking by hand	Grandpa's Tractor;	1	Farmer Cap	6
Combining				
Farmhouse	A Cow's Alfalfa-Bet; Crash Bang Donkey; Farmer Ham; Tractor Day; Farmer Cap	7	Farm Flu; Red Fox at McCloskey's Farm; Serious Farm, Grandpa's Tractor;	4
Buildings				
barn	Tractor Mac Saves Christmas; A Cow's Alfalfa-Bet; Crash Bang Donkey; Farm Flu; Serious Farm, Tractor Day; Otis	8	A Cow's Alfalfa-Bet; Grandpa's Tractor;	2
silo	Farm Flu;	1	Grandpa's Tractor	1
chicken coop	Tractor Mac Saves Christmas; Red Fox at McCloskey's Farm	2		

* *n*= number of illustrations

Picture Books with a Contemporary Setting

A total of 45 machinery images were portrayed in these books, and of those 38 (84%) were stereotypical. Hence, Hypothesis 3 was not supported by the findings. In images of the clothing the farmers, 27(59%) out of the 46 wore stereotypical attire. Images of livestock were examined for their realistic representation to determine if they were accurate or stereotypical. Out of the fourteen books in this genre, *Grandpa's Tractor,* was the most accurate, and it also accurately explained what is happening to farmland around the country.

Farmer Gender in Traditional Tales in Picture Book Format

There were 24 images of farmers portrayed in the traditional tales included in the study, and out of those 16 (67%) were male. Only 8 (33%) were female. Table 4 summarizes findings related to gender for traditional tales in picture book format.

Table 4 Gender of Farmers in Traditional Tales in Picture Book Format

Gender of Farmer	Traditional Literature	*n=*
Male	Christmas Day; American Folktales: The Knee-High Man; Wilber's Adventure; The Farmyard Jamboree; I Know a Wee Piggy; Mary and Her Little Lamb; Moo, Moo, Brown Cow, Have You Any Milk?; Jo MacDonald Saw a Pond; The Little Red Hen; Barnyard Slam; Old MacDonald Drives a Tractor; The Cazuela That the Farm Maiden Stirred;	16
Female	Christmas Day; Wilber's Adventure; Mary Had a Little Lamb; The Farmyard Jamboree; Mary and Her Little Lamb; Jo MacDonald Saw a Pond; The Cazuela That the Farm Maiden Stirred;	8

       * *n=* number of illustrations

Dress of Farmer in Traditional Tales in Picture Book Format

Outdated clothing for a farmer included a straw hat, overalls, flannel shirt, long dresses, bonnets. Assessment of the clothing the farmers wore, the researcher found 27 (87%) out of the 31 were stereotypical attire. Hence, Hypothesis 2 was not supported by the findings. Four (31%) out of the thirteen books had an accurate image of agriculture. Table 5 summarizes findings related to clothing attire of farmers in traditional tales in picture book format.

Table 5
Dress of Farmer in Traditional Tales in Picture Book Format

Dress of Farmer	Titles with Stereotyped Illustrations	*n=	Titles with Accurate Illustrations	*n=
Overalls	Christmas Day; American Folktales: The Knee-High Man; I Know a Wee Piggy; Mary and Her Little Lamb; Moo, Moo, Brown Cow, Have You Any Milk?: Jo MacDonald Saw a Pond; The Little Red Hen; Old MacDonald Drives a Tractor;	9		
Straw hat	The Little Red Hen; Old MacDonald Drives a Tractor;	2		
Flannel shirt	American Folktale: The Knee-High Man; Wilber's Adventure; Mary and Her Little Lamb; Moo, Moo, Brown Cow, Have You Any Milk?; Jo MacDonald Saw a Pond;	6		
Aprons	Christmas Day; Mary and Her Little Lamb; The Cazuela That the Farm Maiden Stirred;	4		
Bonnet				
Long dresses	Christmas Day; Mary and Her Little Lamb; Jo MacDonald Saw a Pond; The Cazuela That the Farm Maiden Stirred; Mary Had a Little Lamb;	6		
Pants			Wilber's Adventure; Barnyard Slam; The Cazuela That the Farm Maiden Stirred;	4

* *n*= number of illustrations

Traditional tales in picture book format were analyzed and classified as stereotypical or accurate based on these themes: buildings, grain storage, animals, animal housing, equipment, harvesting, and farming methods. Table 6 summarizes these themes.

Table 6
Summary of Traditional Tales in Picture Book Format

Themes	Titles with Stereotyped Illustrations	$n=$	Titles with Accurate Illustrations	$n=$
Buildings				
Wooden barn	Christmas Day; American Folktales: The Knee-High Man; Wilber's Adventure; Mary had a Little Lamb; Mary and Her Little Lamb; Barnyard Slam; Old MacDonald Drives a Tractor	9		
Metal barn				
Lean-to	Mary had a Little Lamb;	1		
Farmhouse	Christmas Day; American Folktales: The Knee –High Man; Wilber's Adventure; Mary had a Little Lamb; The Farmyard Jamboree; I Know a Wee Little Piggy; Mary and Her Little Lamb; Moo, Moo, Brown Cow, Have You Any Milk?: Jo MacDonald Saw a Pond; The Little Red Hen; Barnyard Slam	11		
Grain storage				
Silo	American Folktales: The Knee-High Man; Mary had a Little Lamb; Old MacDonald Drives a Tractor;	3		
Grain Bin				
Corn Crib	American Folktales: The Knee-high Man	2		
Animals				

Cattle	The Farmyard Jamboree; I Know a Wee Piggy; Mary and Her Little Lamb; The Little Red Hen; Barnyard Slam; Old MacDonald Drives a Tractor; The Cazuela That the Farm Maiden Stirred;	8	Christmas Day; Wilber's Adventure; Moo, Moo, Brown Cow, Have You Any Milk?;	3
Swine in dirt lots	American Folktales: The Knee-High Man; Wilber's Adventure; I Know a Wee Piggy; Old MacDonald Drives a Tractor;	4		
Swine in confinement				
Draft Horses				
Quarter Horses	The Farmyard Jamboree; Mary and Her Little Lamb; Barnyard Slam;	3		
Small animals (ducks, cats, dogs, sheep, goats)	The Farmyard Jamboree; The Little Red Hen; Barnyard Slam; Old MacDonald Drives a Tractor; The Cazuela That the Farm Maiden Stirred;	13	Christmas Day; Wilber's Adventure; Moo, Moo, Brown Cow, Have You Any Milk?;	5
Animal Housing				
A-Frame				
Cage				
Chicken Coop			Moo, Moo, Brown Cow, Have You Any Milk?	1
Barn (wood)	Christmas Day; Mary and Her Little Lamb; Moo, Moo, Brown Cow, Have You Any Milk?; Barnyard Slam; Old MacDonald Drives a Tractor;	5		
Free range	Wilber's Adventure; The Little Red Hen;	5		
Confinement				
Equipment				
Combine with less than 6 row head	Old MacDonald Drives a Tractor	1		

Planter with less than 6 rows				
Chisel	Old MacDonald Drives a Tractor	1		
Disc				
Wagon	Old MacDonald Drives a Tractor	2		
Barge Wagon				
Gravity Wagon				
Auger Wagon				
Tractor with Steel wheels				
Tractor with Rubber wheels	Barnyard Slam; Old MacDonald Drives a Tractor	2		
Cultivator				
Tractor without a cab	Barnyard Slam; Old MacDonald Drives a Tractor	2		
Tractor with a cab				
Horse and Plow				
Harvesting				
Straw Bundles				
Combining wheat				
Hand Picking				
Combine				
Farming Methods				
Milking by hand	Christmas Day; I Know a Wee Piggy; The Cazuela That the Farm Maiden Stirred;	4		
Milking Machine				
Cultivating				
Spraying				

* *n*= number of illustration

Nonfiction Agricultural Texts

Modern agricultural images include tractors with cabs, roll over protection (ROP), and rubber wheels or tracks. It also includes advances made to machinery to make farming more efficient, such as technology. Out of the fifteen nonfiction books, 111 (95%) accurate images out of 117 total. Hence Hypothesis 4 was supported by the findings. However, machinery used today such as semis, tractor and airplane sprayers, technology, and multi-row planters were not represented. Updates to animal husbandry were also under represented. Table 7 shows the gender depiction of farmers. There were 41 farmers shown, and out of those 34 (83%) were male. While only seven (21%) were female.

Table 7 Gender of Farmers in Nonfiction Agricultural Literature

Gender of Farmer	Nonfiction Agricultural Literature	*n*=
Male	Farms Old and New; Powerkids: Tractors; All About Tractors; Farm Machines at Work: Milking Machines; Farm Machines at Work: Plows; Farm Machines at Work: Combines; Farm Machines at Work: Tractors; Working on the Farm; Community Helpers: Farmers; Sesame Subjects: My First Book About Farms; Farm ABC; What Now Kerbie?;	34
Female	Farm Machines at Work: Milking Machines; Working on the Farm; Community Helpers: Farmers; Sesame Subjects: My First Book About Farms; Farm ABC;	7

* *n*= number of illustrations

Nonfiction texts were analyzed and images were classified as stereotypical or accurate within these themes: tractors, harvesting and planting, buildings, livestock, and some non-categorized themes. See Table 8.

Table 8
Summary of Nonfiction Agricultural Text

Themes	Titles with Stereotyped Illustrations	*n=*	Titles with Accurate Illustrations	*n=*
Tractors				
Cab	Sesame Subjects: My First Book About Farms; Working on the Farm;	2	Farms Old and New; Farm Machines at Work: Combines; Farm Machines at Work: Tractors; All About Tractors; What Now Kerbie?; Sesame Subjects: My First Book About Farms; Fall Harvest; Power Kids: Tractors; Farm ABC; Farm Machines at Work: Plows	28
Tractor with Roll Over Protection			All About Tractors; Power Kids: Tractors;	3
Rubber wheels			Farms Old and New; Farm Machines at Work: Combines; Farm Machines at Work: Tractors; All About Tractors; What Now Kerbie? Working on the Farm; Fall Harvest; Community Helpers: Farmers; Power Kids: Tractors; Farmers; Farm ABC; Farm Machines at Work: Plows;	45
Tracks			Farm Machines at Work: Tractors;	2
Technological device				
Harvesting and Planting				
silage				
bailing equipment			All About Tractors; Power Kids: Tractors;	4
Multi-row planter				
Plow	Power Kids: Tractors;	2	Farms Old and New; All About Tractors; Farm Machines at Work: Plows;	5

Multi-row combine	What Now Kerbie?	1	Farm Machines at work: Combines; All About Tractors; What Now Kerbie? Community Helpers: Farmers; Farmers	15
drill			Working on the Farm; Community Helpers: Farmers;	2
Technological device				
Gravity Wagon			Farm Machines at Work: Combines; Farm Machines at Work: Tractors; What Now Kerbie?; Community Helpers: Farmers;	4
Semi			From Grass to Milk	1
Straight Truck	Community Helpers: Farmers	1		
Manure spreader				
Tractor Sprayers			What Now Kerbie?(airplane); Power Kids: Tractors;	2
Buildings				
barn	Farms Old and New; Sesame Subjects: My First Book About Farms; Working on the Farm; Community Helpers: Farmers; Farmers; Farm ABC;	11	What Now Kerbie? Farm ABC;	2
Confinement			Farms Old and New	1
Automated feeding system				
Automated milking parlor			Working on the Farm; Farm Machines at Work: Milking Machines; From Grass to Milk;	3
Heating and cooling system			Farm Machines at Work: Milking Machines;	1
Automatic water				
Air Filtration				
Livestock				
chickens			Working on the Farm; Farm	2

			ABC;	
cattle			Farms Old and New; Sesame Subjects: My First Book About Farms; Working on the Farm; Community Helpers: Farmers; Farm ABC; Farm Machines at Work: Milking Machines; From Grass to Milk;	7
swine			Farms Old and New; Farm ABC;	2
sheep			Sesame Subjects: My First Book About Farms; Working on the Farm; Farmers; Farm ABC;	4
goats				
Miscellaneous				
Computer			Working on the Farm	1
Gator/Mule			Farm ABC;	1
ATVs				
farm house	Sesame Subjects: My First Book About Farms; Working on the Farm; Farmers;	3	Sesame Subjects: My First Book About Farms;	1

* *n*= number of illustrations

Summary

In these examples of recently published children's literature in all three genres studied, the majority of the images portrayed agriculture in an stereotypical manner. Males are still highly depicted as the farmer. Often when a female was shown, she was working with livestock and not machinery. Nonfiction agricultural literature portrayed agriculture the most accurately, but left out key equipment that plays a crucial role in making farming efficient. The machinery portrayed was mostly accurate, but still does not depict technological advances that have been made in agriculture. Only one book, *Working on the Farm,* showed farmers using computers to keep crop

and livestock records. One book, *Farm Machines at Work: Tractors*, showed a tractor with tracks. Frequently, animal husbandry depicts animals outside and in old wooden barns. This depiction is still used, but there have been updates to this practice as well.

This study looked at a total of forty-five books recently published. All were agriculture based and fit into one of the three genres, storybooks with a contemporary setting, traditional literature in picture book format, and nonfiction agricultural literature. This study reinforced the importance of the knowledge base about how well children's books are compensating for the lack of first-hand experience. Reviewing the results for each genre showed that literature is behind the advances being made in agriculture.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

Problem

The purpose of this research was to analyze representations of modern American farming in traditional tales in picture book format, storybooks with contemporary settings, and non-fiction literature to assess how accurately agriculture information is provided to children to compensating for the lack of first-hand experience.

Conclusions

Four hypotheses guided the research and examination of literature. Of those four hypotheses only one was supported. The researcher found that out of the three genres, nonfiction was the most accurate. However, even though nonfiction was the most accurate, those texts still failed to depict contemporary agriculture. Updates in agriculture include technology on equipment and for record keeping, and more efficient equipment. Picture books with contemporary settings still showed stereotypical imagery of farmers' attire, equipment, buildings, and roles of famers. These books often showed animals talking and walking upright instead of on all fours. A commonality found among all three genres was the male to female ratio. Majority of the farmers portrayed were men. When women were portrayed as farmers they were often dealing livestock instead of machinery. Due to the findings it is important for librarians to update their collections to include books with a modern portrayal of agriculture and gender portrayals in order for students to compensate for the lack of first-hand experience.

Recommendations

This study focused on picture books with a contemporary setting, traditional literature in storybook format, and nonfiction agricultural literature printed from 1997 on. For future studies a researcher could examine more books and include electronic books.

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APPENDIX A
TRADITIONAL TALES IN STORY BOOK FORMAT

Themes	Titles with Stereotyped Illustrations	*n=*	Titles with Accurate Illustrations	*n=*
Buildings				
Wooden barn				
Metal barn				
Lean-to				
Farmhouse Traditional				
Grain storage				
Silo				
Grain Bin				
Corn Crib				
Animals				
Cattle				
Swine in dirt lots				
Swine in confinement				
Draft Horses				
Quarter Horses				
Small animals (ducks, cats, dogs, sheep, goats)				
Animal Housing				
A-Frame				
Cage				
Chicken Coop				
Barn (wood)				
Free range				
Confinement				
Equipment				
Combine with less than 6 row head				
Planter with less than 6 rows				

Chisel				
Disc				
Wagon				
Barge Wagon				
Gravity Wagon				
Auger Wagon				
Tractor with Steel wheels				
Tractor with Rubber wheels				
Cultivator				
Tractor without a cab				
Tractor with a cab				
Horse and Plow				
Harvesting				
Straw Bundles				
Combining wheat				
Hand Picking				
Combine				
Dress of Farmer				
Overalls				
Straw hat				
Flannel shirt				
Aprons				
Bonnet				
Long dresses				
Pants				
Farming Methods				
Milking by hand				
Milking Machine				
Cultivating				
Spraying				

n=Number of illustrations

APPENDIX B
PICTURE BOOKS WITH A CONTEMPORARY SETTING

Themes	Titles with Stereotyped Illustrations	*n=*	Titles with Accurate Illustrations	*n=*
Machinery				
Antique Tractor				
Tractor with Cab				
Tractor with Roll over Protection (ROP)				
Tractor without Cab				
Combine				
Planter				
plow				
Disc				
Wagon				
Production Specific				
drill				
mower				
bailer				
silage				
Cultivator				
Horse and Plow				
Sprayer				
Manure Spreader				
Semi				
Straight Truck				
Dress of Farmer				
Overalls				
Straw hat with a brim				
Flannel shirt				
Coveralls				
Aprons				
Bonnet				
Long dresses				
Pants/ Jeans				
Coveralls				
Casual Clothing				
Farming Methods				

Milking by hand				
Milking Machine				
Livestock				
Chickens				
Goats				
Sheep				
Swine				
Cattle				
Harvesting				
Picking by hand				
Combining				
Farmhouse				
Buildings				
barn				
silo				
chicken coop				

n=Number of Illustrations

APPENDIX C
NONFICTION AGRICULTURAL TEXTS

Themes	Titles with Stereotyped Illustrations	*n=*	Titles with Accurate Illustrations	*n=*
Tractors				
Cab				
Tractor with Roll Over Protection				
Rubber wheels				
Tracks				
Technological device				
Harvesting and Planting				
silage				
bailing equipment				
Multi-row planter				
Plow				
Multi-row combine				
drill				
Technological device				
Gravity Wagon				
Semi				
Straight Truck				
Manure spreader				
Tractor Sprayers				
Buildings				
barn				
Confinement				
Automated feeding system				
Automated milking parlor				
Heating and cooling system				
Automatic water				
Air Filtration				

Livestock				
chickens				
cattle				
swine				
sheep				
goats				
Miscellaneous				
Computer				
Gator/Mule				
ATVs				
farmhouse				

n= Number of
Illustrations

APPENDIX D
<u>BIBLIOGRAPHY OF BOOKS USED</u>

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