

Occupational Gender Role Stereotypes
and Career Choice of
Young Children

by

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ABSTRACT

The purpose of this study was to examine the occupational gender role stereotypes of elementary school children. The concern is that young kids are repeatedly exposed to gendered occupational stereotypes, which may limit their vocational options and therefore be less likely to pursue gender bending careers later in life. According the Miller and Budd (1999), children are socialized very early in life to learn that there are certain careers that are just for females and just for males. Research has consistently reported that children desire jobs which match the stereotypes and expectations placed upon their own sex, and a child's gender has been found to be the biggest predictor of their occupational preferences, over interests, monetary gain, etc. (Sellars et al., 1999). This is a concern for guidance counselors, who want their students to have a wide range of career options. This study compared the occupational preferences, perceptions, and gender stereotypes held by fifth and second grade boys and girls at a Midwestern

elementary school. All students in the second and fifth grades were invited to participate in a survey, administered in spring 2007. The survey depicted 24 careers, which the participants rated according to desirability, and six career vignettes, where the participants had to decide what gender was featured. Chi-squared analyses were performed to analyze the data. It was found that there were significant differences between boys and girls in the jobs that they preferred. Participants' career preference ratings were significantly dependent on their gender. It was also found that both genders and grade levels were likely to hold stereotypes about careers and gender appropriateness.

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Chapter I: Introduction

“What do you want to be when you grow up?” This is a question asked of children day in and day out. It’s a simple question, but a very important one, too. In this day and age, children, regardless of whether they are male or female, are lucky enough to have the opportunity to explore a wide range of career options. Fortunately, the many barriers that once existed when choosing a career are now mostly irrelevant. However, regardless of progressive times, there is a significant disproportion of men and women workers in certain vocations (Levy, Sadovsky, & Troseth, 2000; Liben, Bigler, & Krogh, 2002; Miller & Budd, 1999; Sellars, Satcher, & Comas, 1999). For example, men often hold careers in engineering, law, surgical medicine, and mechanics, while women tend to be represented in secretarial positions, jobs in education, and childcare (Miller & Budd, 1999). Researchers have begun to examine factors that lead to this imbalance in occupational choice, and a main contributor is thought to be the gender stereotypes that are inherent in American society (Liben et al., 2002; Miller & Budd, 1999). Specifically, in the past, much attention has turned to the socialization of children into appropriate gender behaviors (Liben, et al., 2002; Miller & Budd, 1999).

Right from the beginning of their lives, children are potentially socialized into believing that certain things are specifically appropriate for males while other things are strictly meant for females (O’Brien, et al., 2000). For example, baby boys are often dressed in blue, and girls are commonly dressed in pink. Masculine and feminine roles and stereotypes can become established for children and an incredibly young age, and as kids grow up and experience the world, they may learn gender appropriate ways of behaving. They also learn that there can be consequences for crossing those gender lines (Helwig, 1998; O’Brien et al., 2000). In American society, it is common for it to become apparent early on as to what is expected of each gender

and how to act accordingly. In fact, early research has shown that sex-role stereotypes have been revealed in children as young as two years old (Miller & Budd, 1999).

Sex-role stereotyping in career choice has become a focus of recent research, and this phenomenon appears to be occurring across the lifespan (Levy et al., 2000; Liben et al., 2002; Miller & Budd, 1999; Mwaba, 1992). Most research of this kind has focused on older students and has examined their beliefs about competence and success in certain subjects. For example, Levy et al. (2000) reported that adolescent girls rated their abilities in math, physical science, and engineering as lower than boys the same age. The girls also rated these subjects as less important, less interesting, and less useful than males tended to rate them and less frequently chose these types of subjects when it came time to register for school courses (Levy et al., 2000). It was originally hypothesized that gender stereotypes were led girls to be less confident about their abilities in certain subjects, in part leading to under preparation for occupations that revolved around these particular subject matters (Levy et al., 2000; Miller & Budd, 1999). However, more recent research suggests that gender stereotypes have a broader effect on occupational choice, and that it is not necessarily just young people's doubts about achievement that have led to such a gender segregated work world (Levy et al., 2000).

A significant number of research studies have considered the impact that gender stereotypes have on occupational choice at a *young* age and have specifically examined young children's knowledge and beliefs about the attributes of certain careers (Levy et al., 2000). This is an important topic because work is a central part of American life—time, identity, and emotional well-being all revolve around work and occupations, and it is now widely accepted that career exploration and development should begin during early childhood (Hoffman & McDaniel, 1991; Liben et al., 2002; Seligman & Weinstock, 1991). Thus, it is extremely

important to understand how children's beliefs about work develop and how they decide what occupations are of interest to them. According to Miller and Budd (1999), and Liben et al. (2002), children learn fairly early in their lives that there are certain jobs only men are supposed to perform and other jobs that are meant strictly for women. This occurs with children as young as preschool age (Levy et al., 2000). For example, in one study, preschoolers were told to choose occupations they would like to hold when they grew up. The preschool girls chose occupations that were primarily associated with women, such as nursing and teaching. On the other hand, the preschool males chose masculine occupations, like truck driving or law enforcement. Additionally, both genders reacted very negatively to the concept of someday working in jobs that were perceived to be limited to the opposite sex (Levy et al., 2000). In another study, elementary and middle school students were asked to choose their ideal occupations. Males predominately aspired to become doctors, while females listed the job of a nurse most frequently (Mwaba, 1992). In fact, most research has consistently supported the idea that children desire jobs which match the stereotypes and expectations of their own sex (Liben et al., 2002).

Unfortunately, once these stereotypes about what is and isn't an appropriate occupation for a male or a female are formed, those opinions are often extremely difficult to change (Liben et al., 2002). It is often suggested that seeing or hearing about jobs performed only by one sex makes the opposite sex less interested in pursuing those jobs later on (Liben et al., 2002; Miller & Budd, 1999). So, if a young girl is repeatedly exposed to male doctors, not only does she learn that doctors are supposed to be male but, as a result, is less likely to pursue a career in medicine (Liben et al., 2002). According to Liben et al. (2002), and Trepanier-Street and Romatowski (1999) children form gender schemas about occupations and once those schemas are in place, children "filter" information so that any new and additional experiences are unable to change

stereotypical beliefs. This means that, when children are exposed to information or situations that may contradict and challenge stereotypes, it is simply not attended to (Liben et al., 2002).

Therefore, the career goals, aspirations, and opportunities of both males and females may be limited because of sex role stereotypes (Miller & Budd, 1999). Instead of choosing to explore occupations that reflect interest or talent, or even before children know who they are and whether they identify themselves as masculine or feminine, children choose occupations that fall within gender lines (Sellars et al., 1999). Kids often hear the statement that they can “be whatever they want to be.” However, there seems to be the implied message that they can do so as long as it fits in with expectations of what it means to be a female or a male.

This constitutes a concern for guidance counselors, who, at the elementary school level, want students to be able to explore a wide variety of career choices, regardless of whether they are performed mostly by a male or by a female (Sellars et al., 1999). Results of research on gender role and occupation therefore have the potential to impact the way that school counselors deliver vocational guidance. By understanding and accepting that children may believe some occupations are simply not accessible to them or that they won't perform well at certain jobs, counselors can be all the more diligent at challenging those stereotypes (Hoffman & McDaniels, 1991). Results of this research may also simply lead counselors to have stronger career development programs in elementary schools, since occupational gender stereotypes appear early and are difficult to change (Hoffman & McDaniels, 1991; Liben et al., 2002). Additionally, just being knowledgeable about students' different beliefs and attitudes toward occupations will help counselors serve their students more efficiently (Hoffman & McDaniels, 1991). Benefits of this research are widespread. If people begin to choose occupations based on interest and ability, rather than certain affixed criteria, American society in general may improve (Mwaba, 1992).

Furthermore, important steps towards gender equality in terms of career access and career opportunities for both females and males could be made. Previous research is limited in that it tends to be outdated, is extremely broad based, and is generally not specific to the purposes of school guidance and counseling (Hoffman & McDaniels, 1991; Liben et al., 2002).

Statement of the Problem

The purpose of this study was to examine the occupational gender role stereotypes held by boys and girls attending the second and fifth grades students at a mid-sized public elementary school in the Midwest. Specifically, it looked at how these stereotypes may impact student's occupational aspirations. This study also investigated the attitudes and perceptions boys and girls have about people who work in non-gender traditional occupations. Moreover, it examined if and how gender stereotypes change as children age and gain more life experience. The hypothesis is that, if kids are repeatedly exposed to occupational gender stereotypes as young children, they will be less likely to pursue gender-bending careers later on in life, thus perpetuating a cycle of unequal distribution of jobs in the work place. Therefore, research of this nature has a number of important implications for guidance and vocational counselors. Data was collected via a survey created by the researcher, which was administered to students in each of the two grade levels mentioned during the spring of 2007.

Research Questions

There were four questions at the center of this study, which served as a guide to the research. The study sought to address all of the following:

1. Are there differences between girls and boys in the careers that they choose?
2. Do children hold stereotypes about traditional male and female occupations, i.e. men are more capable of certain jobs than women are?

3. Are males more likely than females to choose gender typed careers or vice versa?
4. Do occupational stereotypes persist or diminish over time?

Definition of Terms

In order to enhance understanding of the following study, there are several terms that have been identified and defined.

Gender schemas: An organized pattern of behavior which children use to sort information about the world with regard to gender (O'Brien et al., 2000; Trepanier-Street & Romatowski, 1999).

Sex Role Stereotypes: Beliefs and attitudes about what is appropriate for males and what is appropriate for females in terms of activities, behaviors, appearances, etc (Helwig, 1998).

Gendered occupations: Occupations are classified as male, female, or neutral based on data from the U.S. Department of Labor. If an occupation has 70% or more workers of one sex, it is considered to be a gendered occupation (Helwig, 1998).

Gender role identity: Degree to which individuals consider themselves to be masculine, feminine, or androgynous (Sellars, et al., 1999)

Assumptions and Limitations

Although this study was performed in a manner that aimed to yield results that were both valid and reliable, there were some potential limits as to how certain one can be when generalizing the results to larger populations.

A limitation to this study includes a small sample size. The sample consisted of students from one elementary school (N=102). Another limitation was that the sample consisted of primary of Caucasian students. The lack of racial diversity in the samples makes it difficult to generalize the results broadly.

An important assumption was that participants answered the questions honestly. Also, it was presumed that the participants are adequately representative of the larger population of American fifth and second grade students they were drawn from. This study sought current information on occupational gender stereotypes. Specifically, it is hoped that the results emphasize the importance of providing career guidance that encourages flexible gender roles in career and occupational choice.

Chapter II: Literature Review

The topic of occupational gender stereotypes and children's perceptions of those careers is certainly a multifaceted subject matter. This chapter addresses several of the components that delineate this issue. In the first part of the chapter, general ideas about children's gender role cognitions will be examined, including thoughts about the origin and perpetuation of such ideas and stereotypes. Next, theories about career development as a lifelong, developmental process will be discussed, along with the importance of orienting kids to occupations during the earlier years of their lives. Finally, this chapter will conclude with a discussion of recent literature that describes children's perceptions of gendered occupations, including what has been reported about differences between career desirability ratings of choice vs. competence, differences between males and females, and differences between age levels.

Development of Gender Role Cognition in Young Children

The idea of gender, or what it means to be a boy or a girl, is something that children are aware of from an early age. According to O'Brien et al. (2000), children as young as three and four can consistently decipher between "girl items" and "boy items" when asked to do so. The question, and the topic of extensive research, is how, where, or why do children develop these gendered ideas? There have been a plethora of explanations and much debate has been focused on contrasting biological gender influences versus environmental effects. An increasingly common consensus has been that children's gender stereotypes are molded partly by their biological compositions and partly by their environmental experiences (Gottfredson, 1996). According to Gottfredson (1996), biologically driven differences between boys and girls cause people to relate, react, and treat them differently. So, since boys have a biological disposition to be taller, stronger, and more aggressive than girls, they are treated less delicately, or, are thought

to be more capable of working occupations involving construction or athletics (Gottfredson, 1996). However, while genetics may in fact provide a framework for gendered conceptions, it is widely accepted that gender stereotypes are only *built* from a biological framework and are then formed and shaped further by environmental factors, such as what children are learning and reading in school, what they are watching on TV, and the people who are around them (Durkin & Nugent, 1998; Liben et al., 2002; Trepanier-Street & Romatowski, 1999).

Developmental theory has suggested that the early and middle childhood years are a great time for children to learn new things and discover the world around them, which occurs as they are exposed to different experiences and situations—children are not passive learners of their environment (Gottfredson, 1996). According to Trepanier-Street and Romatowski (1999), children are very capable of observing and comprehending what goes on in their lives and in society as a whole—they are able to absorb, process, and contemplate the vast amounts of social information they observe. This, of course includes information about gendered behaviors (Trepanier-Street & Romatowski, 1999). During early childhood, boys and girls are already attending to the differences between boys and girls that they observe within their environment (Helwig, 1998; Trepanier-Street & Romatowski, 1999). Most explanations about children’s development of gender-role cognition stem directly from Bandura’s Social Learning Theory, meaning that children adhere to gender stereotypes because, essentially, that is what they were taught to do, even if it was not taught to them directly (Helwig, 1998). Kids are aware of what toys each gender should play with, what games and activities each should participate in, and yes, what occupations they should explore and aspire to. They also see males and females acting in “gender appropriate” ways, and model and imitate that behavior (Helwig, 1998; Liben et al., 2002; O’Brien et al., 2000). Additionally, not only are children able to determine what activities

a male or female should be performing, but they are able to predict what gender a person is, just by seeing the activities they are performing (Martin, Wood, & Little, as cited in Helwig, 1998). Gendered messages are both subtly and overtly dispersed in our society. Children then organize or compartmentalize these ideas and use them to sort *new* information about gender (Liben et al., 2002; Trepanier-Street & Romatowski, 1999). Thus, once children develop their gender schemas from the environment around them, these schemas remain relatively salient as they make decisions throughout life (Liben et al., 2002; Trepanier-Street & Romatowski, 1999). Overall, it is widely accepted that children's environments, where they learn to differentiate between boys and girls, and where kids are able to observe, imitate, and model gender appropriate behavior, are where gender stereotypes are developed (Helwig, 1998; Liben et al., 2002; O'Brien et al., 2000; Trepanier-Street & Romatowski, 1999). Several of these environmental sources are examined in the following paragraphs.

A large part of a child's environments includes entertainment: children frequently utilize television, movies, computers, video games, and books to amuse themselves and others (Durkin & Nugent, 1998; Kashey, 1993). Unfortunately, gender portrayal in the media tends to be stereotyping, even in family friendly genres (Durkin & Nugent, 1998). Television and books are, perhaps, the easiest form of entertainment for kids to access, and the characters often become role models whose behavior is often imitated and modeled by the children who are watching and reading. According to Kashey (1993), and Durkin and Nugent (1998), it has been well established that a large portion of the shows on TV and a number of children's books, portray males and females in traditional gender roles. Kashey, for example, (1993) looked specifically at the illustrations in the popular *Berenstein Bear* series and found male characters were usually depicted in traditional occupations and performing traditional male activities, while,

interestingly, the female characters were sometimes shown in gender-flexible occupations and activities (Kashey, 1993). Based on her observations of the books, Kashey (1993) surmised that it was more desired for girls to be masculine and tomboyish than it was for boys to be feminine, or “sissies.”

Additional research has specifically examined other popular entertainment mediums. Durkin and Nugent (1998), for example, believed that television programs confirm and perpetuate gender stereotypes by featuring characters engaged in “traditional” activities. For example, if numerous television shows portray females shopping, Durkin and Nugent (1998) hypothesized that this would lead children to interpret shopping as a female-only activity. They found that, when children were shown television scenes that featured either a traditional male activity (i.e. race car driving, fishing, putting out fires, driving a truck, etc.) or a traditional female activity (washing clothes, baking, doing the shopping, or sewing, etc.), the children were not only aware that the activity was for a male or female, but rated the ability of males to do female activities and females to do male activities, as lower than the ability of each to do the sex role stereotyped activities (Durkin & Nugent, 1998). Additionally, children judged their own competence for such activities based on what gender they were (Durkin & Nugent, 1998). These findings not only provide clear evidence that children are paying attention to the gendered content they are watching and reading and that this stereotyped information is salient to them as they make decisions about stereotyped activities, including occupations.

Although the media is a prominent component in children’s lives, it is probable that a large portion of gender information simply comes from children’s day to day observations and interactions with people (O’Brien et al., 2000). The individuals living within society itself are actually probably the biggest factor in the formation and perpetuation of gender stereotypes

(O'Brien et al., 2000). It is well established that kids are taught, through differential reinforcement from pertinent individuals in their lives, that certain activities are for boys and certain activities are for girls (Helwig, 1998). Generally speaking, when a boy performs an activity that is traditionally viewed as male, he is often praised or admired. On the other hand, if that boy were to cross gender lines and engage in traditionally female behavior, it is likely others would think he was weird and treat him differently (Helwig, 1998, Blakemore, 1999). Adults have very clear ideas as to what is and isn't gender appropriate behavior. For example, in Blakemore's (1999) study, adults were given a list of gender norms, and they rated how they would feel if someone from the opposite sex violated those norms. Overall, the adults looked upon all boys playing with Barbie dolls, girls playing rough, boys wearing skirts and dresses, and girls wearing suits and ties, negatively. Blakemore (1999) also found that when boys violate gender norms, adults tend to judge them more harshly than when girls violate gender norms. A boy having a girl's haircut was seen as more negative than a girl having a boy's haircut, a boy playing with Barbie dolls was more negative than a girl playing with a G.I. Joe doll, and a boy wearing a dress was rated more negatively than a girl wearing a suit and tie (Blakemore, 1999). Results of this particular study show that adults have very defined ideas about gendered behavior and may react strongly to violations that occur (Blakemore, 1999). Our society has a long history of ostracizing individuals who deviate from the norm, and children learn very early on exactly what the people around them deem socially appropriate and inappropriate (Helwig, 1998).

Children also learn about gender stereotypes simply by being active observers of the people around them. Modeling and imitation are very salient forms of observational learning, and children tend to learn by what they see and experience (Helwig, 1998). Primary role models for children are their parents, who not only differentially reinforce stereotypes, but are also

examples for their children in the types of activities and careers they pursue and the attitudes they possess (Davison, 1997; O'Brien et al., 2000). In Davison's (1997) survey of the occupational plans of fourth and sixth graders, girls who indicated their mothers worked in non-traditional careers were more likely to have non-traditional career plans themselves.

Additionally, according to O'Brien et al. (2000), parents who bring their children up in a more traditional home (e.g. breadwinner father, homemaker mother) are more likely to have children with stereotyped attitudes, children who are "early labelers of male and female," and who have very rigid concepts of male and female behaviors. In essence, the types of people (i.e. male or female) children actually see engaging in certain activities, behaviors, or careers, are then who they believe can actually perform that activity (Helwig, 1998; Reid, 1995). Instead of understanding *who* is capable of doing an activity, children pay attention to who actually *does* that activity (Reid, 1995).

As children are socially taught the characteristics, behaviors and attitudes that differentiate boys from girls, they are also learning about the world of work and how to fit themselves within that world (Seligman & Weinstock, 1991). Gender, of course, prominently comes into play (Seligman & Weinstock, 1991). In this section, children's development of gendered stereotypes was discussed. Next, the career development process as it relates to young children is examined. Both these topics amalgamate to impact the perceptions and aspirations of children towards gendered occupations.

Children's Career Development

Over the years, much attention has been given to peoples' lifespan development as well as their natural journey into the working world (Hoffman & McDaniels, 1991; Sellars, et al., 1999). In fact, it often seems that lifespan development and career development go hand in hand

(Hoffman & McDaniels, 1991). As individuals progress through life, a major part of that progression is towards a career or occupation, and then, working and devoting time to that career. Many theories and constructs that describe how people grow and learn, as well as the processes they go through to find a career that fits who they have become, are utilized by helping professionals on a regular basis (Hoffman & McDaniels, 1991). Childhood development, of course, is of a particular interest to those working with younger populations, such as school counselors (Hoffman & McDaniels, 1991).

Until recently, however, the maturation process of young children was limited to social, emotional, and cognitive advances. Even though career development and lifespan development seem to follow a similar progression, career development as it pertained to young children was given very little attention, and often, career guidance was not introduced or emphasized until late adolescence/early adulthood, when students were making post-secondary plans (Hoffman & McDaniels, 1991; Seligman & Weinstock, 1991; Sellars et al., 1999). Recently, however, several theories have emerged emphasizing the importance of vocational development at a young age and, currently in schools, vocational guidance has been extended to include elementary and middle school students (Hoffman & McDaniels, 1991). These ideas are important in understanding how and why kids develop feelings of confidence, competence, and appropriateness in regards to different occupations.

It is now widely accepted that career development is a lifelong process rather than one that begins upon the completion of formal schooling (Sellars et al., 1999). Children are aware of the working world at an extremely young age, and while having a job may mean something entirely different to a child than to an adult, occupations are still a concept that children are thinking, wondering, and eager about (Sellars et al., 1999). In fact, in regards to career

development, many refer to the childhood years as “awareness years (Hoffman & McDaniels, 1991).” Eli Ginzberg, (as cited in Sellars et al., 1999), believed that, at a young age, children embark on an integral part of career awareness and development. Ginzberg, who is credited as the first career theorist to associate career choice with developmental processes, went on to say that, children do in fact, make decisions about careers early on in childhood (Sellars, et al., 1999). Super, a student of Ginzberg’s, theorized that career development takes place in stages, each with different associated tasks (Niles & Harris-Bowlsby, 2005). The childhood and adolescent years are termed the Growth Stage, and it is during this time that children explore careers through fantasy and role playing, by engaging in activities of interest, and by advancing their skills (Niles & Harris-Bowlsby, 2005). During this stage, kids are increasingly able to understand what they are good at, what they enjoy, and what opportunities are available to them, and they are also able to relate those ideas towards eventual career choices and decisions (Niles & Harris-Bowlsby, 2005; Sellars et al., 1999). In one survey, which asked questions about the career development of 10 year olds, the majority of the participants responded in ways that showed they were already thinking about the career process and their future occupations (Seligman & Weinstock, 1991). For example, over half of those who participated believed that they had made decisions in school (i.e. choice of classes, extracurricular activities, effort, etc.) that would eventually affect their goals for their future careers (Seligman & Weinstock, 1991). While the careers young kids choose may not be permanent or set in stone, ideas about careers are very salient to them. Kids are able to assess what careers mean and how they coincide with self identity and environmental influences (Sellars et al., 1999). In short, at a young age, kids are already forming a picture of who they are as individuals and are applying that self concept to potential careers.

Of course, one's gender plays a significant role in defining one's self concept. A major part of how children define themselves, even before they are aware of what it means to be masculine or feminine, is whether they are a boy or a girl (Sellars et al., 1999). Additionally, as established in the previous section discussing gender role development, the environment plays a huge role in defining what makes a boy a boy and a girl a girl. So, while young children are able to discover a great deal about themselves and their personalities, just the simple fact that they are identified as a male or as a female may put on limits on components of their identity development, including possible career aspirations (Sellars, et al., 1999).

Linda Gottfredson is a career development theorist who, like Super and Ginzberg, believed that vocational development begins at a young age (Niles & Harris-Bowlsby, 2005). In fact, Gottfredson has outlined a theory that specifically looks at career development in the first twenty years of life, and she paid special attention to the role of one's self concept and the environment (Gottfredson, 1996). More importantly, her theory explicitly acknowledged the impact that one's gender can have on their career. Developmental processes were at the heart of Gottfredson's theory. She claimed as children grow, their cognitive abilities increase, and they are thus able to process information differently at each age (Gottfredson, 1996). While children are developing cognitively, Gottfredson (1996) believed that children were also simultaneously engaging in what she termed self-creation, which was a product of both genetics and experiences in the environment. Genetics were the raw material that predisposed children to certain activities and occupations. Experience, on the other hand, was what led children to actually engage or aspire to those occupations. As children develop, they form images of occupations based on their increasingly abstract cognitive ability and what they are experiencing in the world (Gottfredson, 1996). According to Gottfredson (1996), these images are often called occupational stereotypes,

and include children's perceptions of how valuable certain jobs are, rewards that are received, and types of people who employed by these jobs, including whether they are males or females. Children "identify the occupations they most prefer by assessing the compatibility of different occupations with their images of themselves (Gottfredson, 1996)." Because children are able to understand social order, they are able to tell what occupations fit both with themselves and with their environment.

Thus begins Gottfredson's stages of circumscription and compromise (Gottfredson, 1996). Circumscription involves the process of elimination. Children basically compare their images of certain occupations to how they view themselves. As children observe occupations that are held by people different than them (i.e. held by the opposite gender), they begin to rule out those occupations. Gottfredson (1996) believed that gender and sex roles were particularly salient during ages 6-8, when children are first starting to distinguish between who works and who doesn't work in certain jobs. At this age, children begin to eliminate possible occupations simply because those jobs do not fit in with their gender self-concept. Compromise, on the other hand, is similar to settling (Gottfredson, 1996). While compromise usually occurs as individuals are entering the workforce, it is applicable to this study because it involves "adjusting aspirations to accommodate reality (Gottfredson, 1996)." Unfortunately, sometimes, regardless of how badly a person wants a certain job, constraints from society hold those ambitions back and another occupation must be chosen instead. This, of course, happens often in the case of traditional and non- traditional gender occupations. It is very likely that there are a significant number of men who aspire to be nurses, but don't, simply because they have had to accommodate reality.

Overall, Gottfredson's theory does an excellent job of explaining how career development begins at an early age and also how gender stereotypes can thwart that development. Children learn at a young age that certain jobs are for boys and certain jobs are for girls, and then are forced to compromise any aspirations they may have had for such jobs, in order to fit with expectations (Gottfredson, 1996). Therefore, instead of children aspiring to careers solely on the basis of their interests and their talents, they become aware of careers that also fit in with being male or female. The next and final section reviews previous research that covers children's choice and perceptions of occupations based on their gender identity.

Children's Selection of Occupations Based on Gender

Common sense would say that individuals choose careers based on who they are—their likes, their interests, their skills, and their abilities. However, it appears that occupational choice is not strictly a product of interest and talent. Instead, as suggested in earlier sections of this paper, these factors are often overlooked if the occupation does not fit with gender schema. This is especially true for children. In a research study performed by investigators Stockard and McGee, as cited by Helwig (1998), the researchers gave fourth graders a list of 21 occupations and asked them to choose the one they liked the most. The gender type traditionally associated with occupation was the strongest predictor of the participant's occupational choice. Overall, males and females chose occupations that fit their gender over occupations that paid more, had more importance, were more difficult, or involved supervisory responsibilities (Helwig, 1998). Similarly, Beuf, as cited in Reid (1995), asked elementary school boys and girls what they wanted to be when they grew up. He then asked them what they would want to be if they were the opposite gender. The students subsequently chose gender typical occupations for themselves as well as their "hypothetical" selves. It has even been reported that before children even have a

firm grasp on whom they are as individuals, they select occupations because they are either a boy or a girl (Helwig, 1998). When Sellars et al. (1999) examined the gender identities and career choices of third and fourth graders, the participants were given the Children's Sex Role Inventory and were asked about their future career aspirations. The majority of the participants identified themselves as androgynous, meaning they had a similar number of female and masculine traits. However, girls still chose stereotypical female occupations while males chose male occupations. Even before the idea of what it meant to have masculine or feminine traits was clear to the participants in this study, they still chose traditional gendered careers for themselves (Sellars et al., 1999). This provides evidence that conceptions of what occupations are and are not appropriate are formed prior to the development of important personality traits and characteristics.

Studies such as these make it seem obvious that children choose potential occupations based on their gender. The main question then seems to be one revolving around career competence versus career choice. Do children choose jobs along traditional gender lines because they feel they are incapable of performing a non-traditional job, or are non-traditional jobs just not attractive to them because of stereotypes learned from observation and experience?

One way researchers have attempted to examine this phenomenon was to study children's attitudes towards males and females working in non-traditional careers for their gender, and also to specifically examine whether children perceived men and women as being capable to perform the same jobs (Davison, 1997; Francis, 1998; Reid, 1995). As mentioned in a previous section of this paper, adults often react negatively to boys who perform traditionally feminine activities (Blakemore, 1999; Helwig, 1998). Is there a similar result when boys and girls specifically

engage in occupations that cross gender stereotype lines? Investigations have yielded interesting results.

The majority of such reports imply that children certainly have strong reactions to those who work in non-gender appropriate occupations and that often, the perceived capability of men or women working in jobs not traditionally associated with their gender has little or no impact on their reactions (Francis, 1998). One particular study, for example, involved seven and eleven year old boys and girls who were grouped and assigned to act out jobs at a hotel, a hospital, or a school (Francis, 1998). One of the groups, which consisted of all males, had a rather difficult time deciding which of the group members would be unlucky enough to have to play the role of nurse. According to Francis (1998), there was “much giggling and embarrassment” and nobody wanted to perform this role because it “wasn’t what boys do.” In an all girls group who were acting out the school setting, the role of caretaker (groundsman) was the role that none of the group members wanted. Francis (1998) accounted that, to the group members, a female playing the masculine role of caretaker was ridiculous and the participant who was forced to take on that role was actually teased by her peers. When the researcher asked why the participants were laughing, one girl replied that it wasn’t because the participant couldn’t perform the job, but because caretakers were normally men, and they, of course, were all girls (Francis, 1998). The participant only agreed to take the role after it was described in a more feminine way, i.e. that job duties would include “polishing and stuff.” Additionally, in the mix gendered groups, it was always the males that took on the roles of caretaker, doctor, or bellman, while females played school teachers, nurses, and front desk workers (Francis, 1998). This suggests that, even in role play situations, where all participants were certainly capable of performing any role (since only

imagination was required), males and females still chose occupations along gendered lines, and were uncomfortable when they were not able to (Francis, 1998).

In another investigation comparing perceptions of capability and personal career preferences, fourth and sixth grade students were asked whether there were some jobs that only men or only women should be able to perform. Students were allowed to answer yes, no, or not sure. The majority of the students in each grade reported that no, there weren't any jobs that should be restricted to just men, and no, there weren't any jobs that should be restricted to just women (Helwig, 1998). Yet, despite participants' beliefs that men and women were *equally capable* of performing the same occupations, the participants involved in this study still tended to select and aspire to occupations that coincided with their gender (Helwig, 1998). In fact, the children's career choices actually mirrored the distribution of males and females we currently see in the work force—participants tended to choose occupations for themselves that presently employ more than 80% women or 80% men (Helwig, 1998; Reid, 1995).

However, in the aforementioned study, students were asked whether men or women exclusively should do *certain* jobs, without specifically saying *which* job. In another study, a group of sixth graders felt that, while a woman was not able to perform the duties of an auto-mechanic, she could definitely choose to be a doctor (Reid, 1995). Interestingly, even though it appears that while boys and girls think that they are equally capable of performing *some* occupations, the job being described may actually impact perceptions of ability. This can probably be explained by environmental influences and increasingly progressive times. We are seeing more and more women doctors or lawyers on television and in movies as well as in the actual labor force (Helwig, 1998). However, the roles of women auto mechanics and engineers, or male hair stylists and secretaries, still go largely unseen (Helwig, 1998). To support this

concept, Reid (1995) asked students in first, second, and third grades about their opinions on which gender could perform each job on a list of specific occupations. The students could respond “only men,” “only women,” “as many women as men,” “more men than women,” and “more women than men.” According to Reid, (1995) when children are asked the question “who is able,” it becomes synonymous with “who actually does.” This implies that those who children actually see doing the work becomes interchangeable with who they think are capable of doing the work (Reid, 1995). In other words, children’s perceptions that a particular career is male or female dominated most likely stems from the fact that they see only males or only females employed in that occupation. What was discussed earlier about social learning theory, observation, and modeling certainly seems pertinent in describing why children limit their aspirations to traditionally gendered occupations. Overall, it can be assumed that how “open” or how “closed” a job seems to be to one’s sex is an excellent predictor of whether or not a child will identify with, aspire to, and eventually choose that occupation (Reid, 1995). Until we are able to see more men and women working in jobs that contradict gender stereotypes, children will continuously confuse who does the job with who is able to do the job.

When gender differences regarding occupational aspirations and perceptions are added as a factor, the picture becomes really interesting. In research, male students have often been compared to their female classmates to determine if and what kind of stereotype differences exist between the two genders. Overall, it seems that girls and boys definitely have different ideas when it comes to careers (Davison, 1997; Helwig, 1998; O’Brien et al., 2000; Reid, 1995; Sellars et al., 1999; Trice, 2000). According to research reports, it seems that boys have much more rigid ideas about what is “man’s work” and what is “women’s work” than girls do (Davison, 1997; Helwig, 1998; Liben et al., 2002; O’Brien et al., 2000; Sellars et al., 1999; Trice, 2000). In a

large number of studies, males were not only less likely to choose a non-traditional gendered career for themselves, but they were also less likely to feel that a woman should work in a traditional men's occupation and vice versa (Davison, 1997; Helwig, 1998; Liben et al., 2002; O'Brien et al., 2000; Reid, 1995; Sellars et al., 1999; Trice, 2000). When boys and girls were read descriptions of a number of occupations and then asked to decide if a man, woman, or both would be appropriate for that job girls reported "both" as a response more often than males reported "both (Helwig, 1998)." Males also reported that occupations were for "males only" more often than the girls reported "males only (Helwig, 1998)." Trice (2000) reported similar conclusions about gender differences regarding occupational stereotypes based on the results of his investigation of children's perceptions of gender appropriateness of occupations. Male participants rated the occupations of policeman, soldier, pet shop owner, veterinarian, and reporter as being for males only. Girls, on the other hand, thought each of these occupations were appropriate for either gender (Trice, 2000). Boys also rated occupations that were considered to be neutral as male oriented. In summary, most research reports that, when children responded that males should do male jobs, it was the boys who did so more often (Davison, 1997; Helwig, 1998; Liben et al., 2002; O'Brien et al., 2000; Reid, 1995; Sellars et al., 1999; Trice, 2000).

If girls are, in fact, more liberal about occupational gender stereotypes, than one can surmise that they would also be more liberal about their career aspirations. However, while it is positive that girls see themselves as fully capable of performing jobs that are traditionally associated with being male, unfortunately, a large amount of research seems to suggest that they still remain uninterested in actually aspiring to those occupations (Helwig, 1998; Miller & Budd, 1999). In Miller and Budd's (1999) research, female participants gave higher preference ratings for jobs that were traditionally female and lower preference ratings for jobs that were

traditionally male, even though, in that same study, the female participants were more liberal in their occupational beliefs. Although girls believe they can function in male oriented occupations, they still choose not to. This correlates with what has previously been reported about perceived capability having little impact on career choice (Helwig, 1998; Miller & Budd, 1999; Reid, 1995).

On the other hand, according to Helwig (1998), children's age seems to be a better predictor of the degree of occupational stereotypes, more so than gender or any other variable. The cognitive ability of children increases at an incredibly rapid rate as they grow older, and researchers have therefore been curious as to whether or not children's gender schemas (and subsequently, their ideas of which occupations are appropriate for men and women) become less rigid with increasing age (Davison, 1997; Gottfredson, 1996; O'Brien et al., 2000;). According to O'Brien et al. (2000), there is ample evidence that stereotypes about gender not only form early, even as early as the preschool years, but that there is little variance in those stereotypes as children age. However, others believe children's stereotypes about gendered occupations change as they navigate their environment and learn more about the world of work (Davison, 1997; Liben et al., 2002; Miller & Budd, 1999; Seligman & Weinstock, 1991). According to Davison (1997) as children grow older, they learn that males and females aren't as different as they originally thought—that each gender shares many similar characteristics, talents, and abilities, which makes their thoughts about gender stereotypes more flexible. In Davison's (1997) study, students in the fourth and sixth grades had to decide if occupations were for men, for women, or for both. The sixth graders responded "both" to the list of occupations more frequently than the fourth graders. It would appear, then, that gender delineation in male and female careers decreases with age (Davison, 1997). Interestingly enough, however, while the sixth graders

involved in this study reported “male only” to occupations significantly less frequently than the fourth graders, the sixth graders’ response of “female only” was similar to that of the fourth graders. This led Davison (1997) to conclude that while male occupational stereotypes become less rigid as children age, there is little or no change when it comes to stereotypes about occupations appropriate for women.

Miller and Budd (1999) performed a similar study to Davison’s, and also reported decreasing occupational stereotyping with age. However, they reported further that this decrease was primarily to do with differences in the beliefs of the *female* students who participated in the study (Miller & Budd, 1999). Previous research has in fact suggested that occupational stereotypes change for girls as they grow, while they remain the same or become more rigid for males (Davison, 1997; Helwig, 1998; Miller & Budd, 1999). In Miller and Budd’s (1999) research, the degree of stereotyping exhibited by the oldest group of male participants (aged 16) did not differ significantly from that of the 12 and eight year old participants, while the female participants stereotyping did decrease as their ages increased. Helwig (1998) would concur. In his longitudinal study, he interviewed students when they were in second, fourth, and sixth grades about their career aspirations. As second graders, the proportion of girls who chose a female dominated occupation was .56. However, when interviewed again in sixth grade, the proportion had dropped to .30. On the other hand, the proportion of boys choosing a male dominated occupation rose from .83 in the second grade to .93 in the sixth (Helwig, 1998). This causes researchers to suggest that, while males become more stereotyped as they grow, girls become less so (Helwig, 1998; Davison, 1997; Miller & Budd, 1999).

Overall, research seems to suggest that gender stereotypes become less rigid as students grow older, at least specifically for females. There is a great deal of evidence which supports

that, when compared with younger children, older children think that men and women are equally capable of performing occupations (Davison, 1997; Helwig, 1998; Miller & Budd, 1999; Reid, 1995). However, according to researchers, despite decreasing stereotype rigidity, children's *aspirations* become increasingly narrowed along gendered lines as they grow up, similar to how females hold more liberal occupational views, but still aspire to traditional female careers (Davison, 1997; Helwig, 1998; O'Brien et al., 2000; Reid, 1995; Sellars et al., 1999; Trice, 2000). Both genders, regardless of how old they are, are choosing to pursue jobs that are commonly held by males and females. This seems to provide evidence that, while boys and girls view each gender as equally capable to perform jobs, the rigidity and salience of sex stereotyping—reactions from their peers and parents, what they observe in the world around them, what they see on television and in movies, what they read about in books—are what lead children to choose jobs along gendered lines (Helwig, 1998, Miller & Budd, 1999; Reid, 1995; Sellars et al., 1999).

Chapter III: Methodology

The purpose of this study was to learn about how gender stereotyped beliefs about occupations may impact the occupational preferences and perceptions of elementary school aged children. This chapter highlights the various aspects that went into data collection and analysis. Specifically, descriptive information about the study's participants are detailed, as well as how those particular participants were chosen for the study. In addition, the instrumentation and data collection methods are described, followed by how the data was summarized and analyzed. The chapter concludes with a discussion of limitations that exist due to data collection.

Subject Selection and Description

This research sought to clarify the gender stereotypes and occupational attitudes of elementary school students. The participants chosen for this study were selected from a convenience sample based on their enrollment in the second and fifth grades at a small, Midwestern elementary school in the United States. The student body consisted mostly of Caucasian students from middle to lower class socioeconomic status and is fairly representative of the larger, general population. Second and fifth grade students were specifically selected on the basis that research has generally shown that gender stereotypes and occupational attitudes differ by age, and students in the second and fifth grades are developmentally far enough apart to make results significant, yet second graders are able to read, which was necessary for participation in the study (Davison, 1997; Helwig, 1998; Miller & Budd, 1999; Seligman & Weinstock, 1991). There were a total of 140 students in the fifth and sixth grade classes. Specifically, there were 66 fifth graders and 74 second graders. All students in each grade were invited to participate in the study. Prior to data collection, letters of consent were sent home with each student with the expectation that their parents or guardians would read or sign them. A total

of 28 students did not return the signed consent forms that were needed in order to participate and therefore were not included in the study. Fifteen of these students were second graders and 13 were fifth graders. Additionally, two students were absent from the fifth grade and one student was absent from the second grade on the day data was collected. Three students from the fifth grade chose not to participate in data collection and surveys responses from four second graders were not included in data analysis due to insufficient or inconclusive responses. This left a total of 102 participants from grades two and five, for a response rate of 72%. The final sample set consisted of 54 second graders, ranging in age from seven to eight, and 48 fifth graders, ranging in age from nine to 11. There were a total of 54 female participants and 48 male participants.

The researcher was given research approval by the elementary school's administration, who were provided with the letter of parental consent (see Appendix A) the survey instrument (see Appendix B) and a description of the study's rationale. Because all participants were under the age of 18, a letter of consent was sent home and signed by the participants' parent or guardian. All students who participated returned the signed letter of consent before data was collected, with the exception of one student whose mother offered verbal permission directly to the researcher.

Instrumentation

The researcher developed a measurement instrument specifically for the purpose of this study, as other measurement instruments that assess gender and occupational perceptions and choices were not available for use. Participants in both grades responded to the survey, which consisted of three parts. The first part asked demographic questions, such as gender, grade in school, and age. Additionally, the participants were asked to share whether or not their parents

were employed, and if they were employed, what their occupations were. Finally, the students were asked how often they thought about what they wanted to be when they grew older—not at all, a little, or a lot. The second part of the survey looked at the students' occupational aspirations. This part consisted of 24 cartoon-like pictures of occupations. Nine of the occupations were considered to be female dominated, nine of the occupations were considered to be male dominated, and six of the occupations were considered to be neutral. Occupations were designated as female dominated, male dominated, or neutral based on statistics from the U.S. Department of Labor. The pictures that were used to represent the occupations were as gender-ambiguous as possible. Students were asked to rate, from one to three, how much or how little they would like the job that was pictured. In the third part of the survey, the participants were presented with seven different scenarios. Three scenarios depicted gender-ambiguous individuals working in traditional male occupations. A construction worker, an electrician, and a mechanic were featured. Three scenarios depicted gender-ambiguous individuals working in traditionally female occupations. A day care provider, a nurse, and a dental hygienist were featured. One scenario depicted a gender-ambiguous individual working in a traditionally gender neutral occupation. This occupation was a public transit bus driver. Again, these occupations were chosen based on 2006 statistics from the U.S. Department of Labor. After each scenario, the students were asked to decide what gender the individual was in the scenario. Additionally, they were asked who would perform the occupation better, a man or a woman. Finally, they were asked if they, themselves, would like that job. A copy of the survey is placed in Appendix B.

It is important to point out, that, because the instrument was designed specifically for the purposes of this study, validity and reliability for this instrument are not available.

Data Collection Procedures

After the Institutional Review Board delivered its approval for the conduction of this study, permission to distribute the surveys was requested and granted from the teachers and administrators at the school where data collection took place. Letters of consent were sent home with the second and fifth graders one week prior to data collection. Signed letters were collected during the week prior to data collection and then cross referenced with class lists. Because of classroom management issues, particularly at the second grade level, students who did not return letters were allowed to fill out the survey, but they were not collected at the end. Only the students who returned signed letters of consent were included in the study. Data was collected over a two-day period during the spring of 2007. Surveys were administered to six classes of students (three second grade classes and three fifth grade classes) in their regular classrooms during their assigned guidance periods. At the time of data collection, the students were given the opportunity to sign their own letter of consent. Three fifth grade students chose not to sign their letter, and therefore, did not participate. All other participants gave their consent. Additionally, it was verbally explained to participants, in terms they could understand, that participation was strictly voluntary and that information would be kept confidential. Names or identifying characteristics were not asked of the participants. Items on the survey were read aloud to the participants, who were allowed to either follow along or work at their own pace. Participants were allowed to ask questions about individual items and occupations on the survey. Participants took approximately 20-30 minutes to complete the survey, which were collected by the researcher after they were completed. After data had been coded and entered into a database, the completed surveys were filed by the researcher and kept in a location where data would remain confidential.

Data Analysis

Descriptive statistics were used to analyze the data from the survey. Frequencies and percentages were calculated to describe the data that was collected about occupational gender stereotypes and young children. Specifically, the Chi-Squared Test of Independence was used to determine if there was a dependent relationship between the participants' gender and their ratings of occupational choice. Chi-Squared was also calculated to determine if there was a dependent relationship between grade level and ratings of occupational choice. Analyses of the occupational scenarios were described using descriptive statistics, including frequencies and percentages. Results of the data analysis will be further detailed in the following chapter.

Limitations

There are several limitations involved in this study, which are specific to the methodology just discussed. One limitation concerns the measurement instrument. As mentioned earlier, the survey utilized in this research study was created specifically for the purposes of the study and reliability and validity has not been assessed. Additionally, because a component to this study was the comparison of second graders to fifth graders, a larger sample size of both groups would have been ideal. The demographic characteristics of the school present a limitation as well. This study included 97% Caucasian participants and 3% minority race students, and therefore, the results of this study cannot be generalized to more diverse populations.

Chapter IV: Results

A survey was administered to 102 second and fifth grade students at a small, Midwestern elementary school. The survey was administered to help determine whether or not occupational gender stereotypes have an impact in the career aspirations and perceptions of elementary school aged children. The following chapter will include a summary of demographic information collected, an analysis of the survey items, and corresponding results of tests of statistical significance. The chapter will conclude with the findings in accordance to the research questions asked.

Demographics

The participants in this survey were 102 elementary school students in the fifth and second grades. Of these 102 participants, 53% (n=54) were second graders and 47% (n=48) were fifth graders. Additionally, 53% (n=54) were females and 47% (n=48) were males. The majority of the participants had parents who worked outside of the home--specifically, 93% (n=95) of those sampled had parents who held full or part-time jobs. These jobs ranged from blue-collar service jobs, such as working at fast food restaurants, to professional jobs, such as teaching at a university. Most of the survey participants responded that they thought about what they wanted to be when they grew up very often—44% (n=45) reported that their future occupation is something they think about quite a bit, 25% (n=26) said they think about it sometimes, and 30% (n=31) reported that they never think about it at all.

Item Analysis—Ratings of Job Desirability/Choice

Participants were given the opportunity to view pictures of 24 occupations that are commonly held either by men, women, or both genders. They were then asked to rate how desirable it would be to employ that particular job. Ratings ranged from one to three, with one

being highly desirable, two being somewhat desirable, and three being not at all desirable. The female dominated occupations that participants chose from are as follows: seamstress, hairstylist, day care provider, nurse, teacher, travel agent, cashier, and librarian. The male dominated occupations that participants chose from are as follows: electrician, soldier, architect, auto mechanic, pilot, groundskeeper, doctor, firefighter, and construction worker. The occupations that were considered to employ men and women equally are as follows: chef, counselor, public transportation driver, performer, and news reporter. For all participants, the occupation of hairstylist received the highest rating most often—33% of the participants (n=30) said that being a hairstylist was something they would really like to do. The least chosen occupation was that of pilot: 74% of the participants (n=75) said that flying planes was something they absolutely would not like to do. When dividing job desirability ratings by gender and grade level, for the girls who participated, hairstylist was still the most selected choice. Of the girls surveyed, 57.4% (n=30) said that they would like to be a hairstylist when they grew up. The electrician occupation was the least popular job choice for the girls—89% (n=39) of the girls surveyed said they would not like to be an electrician. For male participants, the most popular job was soldier, with 42% (n=22) of boys responding that yes, they would like to be in the military. The least popular occupation for male students was the seamstress occupation. A total of 94% (n=45) said that, no, they would not like to be a seamstress, and not one male participant said he would *like* to be a seamstress. For second grade students, the hairstylist occupation was still the most popular option. Nearly 45% of participants (n=24) said they would like this job. The least popular option was the pilot, with 76% of second graders saying they would not like this job. For fifth graders, the most often highly rated career was soldier, as 27% of participants (n=13) gave it a rating of one. The least desirable career option for fifth graders was the seamstress occupation. A total of

73% of students (n=35) reported that they would not want to do this job when they got older. Separate means were calculated for the male and female participants' average preference rating of each occupation. Higher averages (2.7+) are associated with NOT desiring the job. Lower averages (2.3-) are associated with desiring the job. For the girls, job preference means ranged from 1.19 for the hairstylist occupation to 2.85 for the electrician occupation. For boys, means ranged from 1.90 for the auto mechanic to 2.94 for the seamstress occupation. Examination of the participants' average desirability ratings showed that the girls' average ratings tended to be lower (which is associated with choosing the job) for the traditional female occupations and higher (associated with not aspiring to the job) for the traditional male occupations, and vice versa was true for the male participants. In other words, girls had lower averages for traditional female jobs and higher averages for the traditional male jobs, meaning that the female jobs were most desirable to them. The boys responded just the opposite—they had lower averages for the male jobs and high averages for the female jobs, meaning that the male jobs were the most desirable to them. This information is presented in Table 1.

Table 1

Comparison of Female and Male Participants' Average Occupational Preference Ratings

Job	Girls' Mean Ratings	Boys' Mean Ratings
Pilot	2.85	2.50
Architect	2.72	2.38
Seamstress	2.31	2.94
Doctor	2.30	2.38
Teacher	1.85	2.33
Secretary	2.50	2.75
Construction Worker	2.70	2.00
Scientist	2.22	1.83
Travel Agent	2.33	2.40
Nurse	2.19	2.79
Cashier	2.11	2.33
Soldier	2.54	1.96
Electrician	2.85	2.27
Hairstylist	1.69	2.73
Day Care Provider	1.91	2.58
Auto Mechanic	2.74	1.90
Librarian	2.15	2.63
Firefighter	2.74	2.27
Groundskeeper	2.15	2.35

Item Analysis—Job Descriptions of Gendered Occupations/Occupation Perceptions

In this section of the survey, participants were asked to read or listen to a description of an occupation and then decide if the person working in that position was a man or a woman, which gender would perform that occupation better, and whether or not they would choose that occupation for themselves. The occupations are as follows: nurse, day care provider, and dental hygienist (traditionally female occupations); electrician, construction worker, and mechanic (traditionally male occupations); and bus driver (neutral occupation). The participants involved in this survey overwhelmingly responded that descriptions of individuals working as a nurse, a dental hygienist, and a daycare provider were female. Similarly, they reported that women are better equipped and able to perform these occupations more successfully than men. On the other hand, participants predominately reported that descriptions of individuals working either as an electrician, an auto mechanic, or a construction worker, were men, and that men could perform these jobs better than women could.

Research Questions

The following four research questions were posed for this study. A summary of the data collected will follow after each question.

Are there differences between girls and boys in the careers that they choose?

Preliminary descriptive statistical analyses show that the male and female participants involved in this study tended to endorse occupations that were coincident with their gender. For females, the occupations that had the highest response frequencies of “would like to have” were traditionally female occupations. For males, the most endorsed occupations were traditionally male. Similarly, the traditional male occupations were often rated “would not like to have” by the girls, and vice versa. If males rated a job as high, the females tended to rate that job as low

and vice versa. For example, when asked to rate the occupation of nurse, a total of 16 girls said they would like this job, yet only three males responded that they would like to be a nurse. When asked to rate the occupation of auto mechanic, 19 boys responded that they would like this position, yet only two girls said yes, they would like to be an auto mechanic. Interestingly enough, for jobs that were considered to be “neutral,” the boys and girls had preference ratings that were fairly similar, with the exception of the performer occupation. A comparison of male and female participants’ job preference ratings is shown in Table 2.

Table 2

Comparison of Girls Preference Ratings and Boys Preference Ratings

Job	Girls			Boys		
	Like	Maybe	Dislike	Like	Maybe	Dislike
Pilot	1	3	50	4	16	28**
Architect	2	11	41	7	16	25**
Seamstress	10	17	27	0	3	45**
Doctor	10	18	26	7	16	25
Teacher	24	14	16	7	18	23**
Secretary	5	17	32	2	8	38
Construction Worker	5	6	43	11	26	11
Scientist	11	20	23	17	22	30**
Travel Agent	9	18	27	8	13	27
Nurse	16	12	26	3	4	41**
Cashier	15	18	21	9	14	25
Soldier	10	5	39	20	10	18**
Electrician	2	4	48	9	17	22**
Hairstylist	31	9	14	3	7	38**
Day Care Provider	24	11	19	6	8	34**
Auto Mechanic	4	6	44	19	15	14**
Librarian	15	16	23	5	8	35
Firefighter	5	4	45	12	11	25**
Groundskeeper	6	10	38	9	13	26

**Occupations whose ratings were found to be statistically dependent on gender, $p < .001$.

The Chi-Square Test of Independence was used to determine if the career one chooses is dependent on his or her gender. For each career pictured, the participants' gender and their ratings of job desirability were cross-tabulated. Results of the chi-squared analyses showed that career choice is dependent on gender—each variable had a strong impact on the other.

Statistical tests of independence between gender and ratings of job desirability, chi-square analyses found a significant relationship between gender and career preference ratings for the following traditional male occupations: construction ($\chi^2=33.476$, $df\ 2$, $p < .000$); pilot ($\chi^2=10.843$, $df\ 2$, $p < .004$); architect ($\chi^2=7.255$, $df\ 2$, $p < .027$); scientist ($\chi^2=7.178$, $df\ 2$, $p < .028$); soldier ($\chi^2=12.427$, $df\ 2$, $p < .002$); electrician ($\chi^2=21.882$, $df\ 2$, $p < .000$); auto mechanic ($\chi^2=28.904$, $df\ 2$, $p < .000$); and firefighter ($\chi^2=11.550$, $df\ 2$, $p < .003$). Significant relationship between gender and ratings of career preference were found for the following female occupations: Seamstress ($\chi^2 =24.030$, $df\ 2$, $p < .000$); teacher ($\chi^2=10.763$, $df\ 2$, $p < .005$); nurse ($\chi^2=15.955$, $df\ 2$, $p < .000$); hairstylist ($\chi^2=34.151$, $df\ 2$, $p < .000$); daycare provider ($\chi^2=15.219$, $df\ 2$, $p < .000$); and librarian ($\chi^2=9.830$, $df\ 2$, $p < .007$).

Overall, these results led to the conclusion that the participants' gender almost certainly played a role in how the participants rated the occupations. Interestingly enough, statistical significance was not found on any of the chi-squared analyses performed on the designated neutral occupations, meaning that ones gender did not have an impact on ratings of desirability for those jobs. The results of these chi-square analyses support what was observed from the frequency distributions and seem to concur with what previous research has concluded: that yes, there are differences between the jobs that boys and girls choose for themselves and that job preference is highly dependent on gender.

Do children hold stereotypes about traditional male and female occupations, i.e. men are more capable of certain jobs than women are? According to the results of this research, it seems that yes, children do still hold very stereotypical ideas about male and female occupations. For example, the participants in this study believed that females should be nurses and males should be auto mechanics, and that it could not be the other way around. For the nurse occupation, 92% of all participants (n=94) thought the nurse was a woman, and 85% (n=87) thought a woman would do the job better. For the day care occupation, 90% (n=92) thought the day care provider was a woman, and 87% (n=89) thought a woman would do the job better. For the dental hygienist position, 65.7% (n=67) thought the description was describing a woman and 52.9% (n=54) thought a woman would do the job better. For the electrician occupation 97% (n=99) decided that a man was performing the job described, and 97% (n=99) also agreed that a man would perform the duties of an electrician better. The majority of the participants also felt like the auto mechanic description featured a man—95% of the participants (n=97) responded that the auto mechanic was a man, and 94% (n= 96) thought that a man would be better suited to the job. Most participants reported that they thought the construction worker was a man as well—91% (n=93) felt that a man was definitely being described, and 87% (n=89) said that a man would do this type of job better than a woman. Finally, 56% (n=57) of the participants felt that bus driver description featured a man, and 54% (n=54) felt that a man was better suited to perform the job of a bus driver. The data collected by this portion of the survey is summarized in Table 3. Additionally, while children seemed to hold stereotypes about occupations, according to this research, these stereotypes do not seem to depend on whether the child is male or female. The chi-square test of independence was performed to analyze if there was a dependent relationship between the participants' gender and their occupational perceptions. Results were

not statistically significant for any of the occupation descriptions. Therefore, results of this research led to the conclusion that boys and girls most certainly still hold stereotypes about both gender and occupations.

Table 3

Frequency Distribution of Responses to Occupation Descriptions

Job	Who Is It?		Who is More Capable?	
	Woman	Man	Woman	Man
Nurse	94	8	87	15
Day Care	92	10	89	13
Dental Hygienist	67	35	54	48
Electrician	3	99	3	99
Auto Mechanic	5	97	6	96
Construction Worker	9	93	13	89
Bus Driver	45	57	48	54

Are males more likely than females to choose gender typed careers or vice versa?

Prior research has shown that girls tend to be more liberal in their career choices, choosing careers that cross gender lines, while males are more restrictive and choose occupations that are traditional to their gender (Davison, 1997; O'Brien et al., 2000; Reid, 1995; Sellars et al., 1999). Results of this study, however, do not support what has previously been reported. In fact, findings led to the opposite conclusion--one gender was not more "liberal" than the other in regards to choosing traditional occupations. As discussed in an earlier section of this paper,

results of chi-square tests of independence analyzing the participants' gender and their occupational preferences were statistically significant, which showed that career choice was highly dependent on gender for both males and females. Both male and female participants tended to give preferred ratings to the jobs that fell in concordance with their gender—one gender was not more open-minded than the other. That is, the female participants tended to report most often that they would enjoy the female occupations and that they would not enjoy the male occupations. Similarly, the male participants tended to report that they would really like the traditionally male occupations but not the traditionally female occupations.

Additionally, there did not seem to be a difference in the degree of stereotyping portrayed by males when compared with the degree of stereotyping shown by females. To determine this, cross tabulations of gender and the responses to the questions about occupation descriptions were performed. Chi-squared analyses showed no significant relationship between the participants' gender and their opinions about what gender was featured in the description or what gender was more capable of performing the job. In summary, prior research that girls are more likely to choose careers that cross gender lines, while males are more likely to choose gender traditional occupations was not supported by the findings of this study.

Do occupational stereotypes persist or diminish over time?

Previous research has suggested that occupational gender stereotypes lessen with age, so it was assumed that the participants' rating of an occupation's desirability would be highly dependent on the participant's grade level. Based on these reports, it was assumed that the fifth grader participants would choose careers that were less gender-traditional. However, after chi-square analyses were performed, cross-tabulating grade level with each occupation rating, none of the occupational preference ratings were found to be dependent on grade level. Therefore,

according to the data collected by this study, the participants' occupational ratings were not dependent on how old the participant was. Additionally, each grade level exhibited similar stereotypes in regards to what gender was working at each job description and which gender would perform the occupations better. Cross-tabulations and chi-square analyses of grade level showed that holding gender stereotypes was not dependent on age—each grade level exhibited evidence of stereotyping. It can be concluded, then, that gender stereotypes do not change a great deal as students grow and develop.

However, it is important to note that the second graders were much more likely to rate jobs in general, regardless of its male, female, or neutral designation, as higher than the fifth graders rated the jobs. This suggests that the fifth graders took a lot more into consideration when rating the jobs and are possibly much more selective when it comes to choosing occupations. Therefore, it seems apparent that career preferences change as students get older, but, from the results of this study, it is not conclusive whether this occurs because of natural developmental processes or because gender stereotypes are becoming more relaxed.

In conclusion, answers to these research questions were drawn from data accumulated from responses to the survey. Descriptive statistics, including frequencies distributions, which tallied responses, were used to analyze the data, and the chi-squared test of independence was utilized to determine if ratings of job desirability were dependent on either gender or grade level. Results of this data led to the following conclusions: first, boys and girls to rated occupations as higher or lower dependent on whether that occupation is perceived as appropriate for their gender. Second, boys and girls held stereotypes about what gender is appropriate for what job and what gender is more capable of performing that job. Third, occupational preference ratings depended on gender for both boys and girls and both genders held similar occupational gender

stereotypes—that is, girls were not more likely than boys to cross gendered lines when it came to choosing careers, nor were boys. Finally, stereotypes persisted as children grew and developed from second grade to fifth, which suggests that occupational gender stereotypes and gender stereotypes in general remain salient over time.

Chapter V: Discussion

Regardless of increasingly progressive times, when men and women's roles, activities, and behaviors in both life and society are becoming less and less strictly delineated, it is obvious that the occupations in which they are employed are exceptions to these advancements (Levy, et al., 2000; Liben, et al., 2002; Miller & Budd, 1999; Sellars et al., 1999). The distribution of labor in the United States is strikingly divided along gender lines, in which more than 80% women or 80% men employ a significant number of occupations. These statistics have remained relatively unchanged over the past 20-30 years (Helwig, 1998; Levy, et al., 2000; Miller & Budd, 1999; Reid, 1995). This strict dichotomy of male and female occupations is of definite concern to those who are preparing and guiding young children towards future careers, and results of this research study seem to show that our concerns are not unfounded. The following chapter will include a discussion of conclusions drawn from the study and how they relate to current research, a discussion of implications for educators, a review of the limitations of the study and finally, recommendations for future research.

Conclusions

There is a general consensus among researchers that all children, young and old, have very clear perceptions about the differences between males and females and the appropriate behaviors associated with their own gender (Kashey, 1993; Liben et al., 2002; Miller & Budd, 1999; O'Brien et al., 2000; Trepanier-Street & Romatowski, 1999). There also seems to be a consensus that, along with gendered ideas about what toys to play with, what clothes to wear, and how to act, occupational choices and perceptions are also dependent upon whether one is a male or a female (Davison, 1997; Gottfredson, 1996; Miller & Budd, 1999; Reid, 1995; Sellars et al., 1999). These occupational stereotypes are an extremely important issue because, according

to Miller and Budd (1999), they form early on, and put pressures on children to choose occupations that are traditionally deemed appropriate for their gender, regardless of their true interests (Helwig, 1998). Therefore, children are less likely to pursue non-traditional gendered jobs later on. Findings of *this* study support prior research in that they overwhelmingly showed that boys and girls do in fact have firm ideas about what occupations are and aren't appropriate for men and women. When participants read descriptions of ambiguous individuals working at either a male occupation or a female occupation, the majority of the participants, for every occupation described, decided that the person working belonged to the gender traditionally associated with that occupation. Participants also rated that gender's competence as being higher for that particular occupation. Therefore, participants as young as second grade already had an idea of which gender should and shouldn't work at each type of job.

Stereotypes about occupations in turn affect the careers students subsequently choose for themselves (Levy et al., 2000; Liben et al., 2002). This limits students' occupational choices and potentially causes the distribution of gender in the work force to remain divided along male and female lines (Helwig, 1998, Levy et al., 2000; Liben et al., 2002; Reid, 1995). Instead of choosing from a variety of careers, students restrict their choices, with or without meaning to, to jobs that they deem as appropriate for their gender. As mentioned previously, results of several studies have found that the occupations children stereotyped the most were the occupations that were more than 80% male or 80% female in the actual labor force (Helwig, 1998; Reid, 1995). This study yielded similar findings—the occupations that were most desirable for both the second and fifth grade males were the careers in society dominated by men, and the careers most desired by the girls in each grade were the careers in society dominated by women. Alternatively, the least popular choices for the girls were the occupations like auto mechanic and

firefighter, which are currently dominated by men, and the least popular choices for the boys were the occupations such as seamstress and hairstylist, which are currently dominated by women. This seems to show that ideas about gender form early and remain unchanged as children grow, quite possibly remaining salient through to adulthood (Helwig, 1998; Reid, 1995).

Additionally, it shows stereotypes about what occupations are appropriate can actually limit the types of careers that students choose for themselves as adults. In a number of previous research studies, when children were asked what careers they would choose for themselves, the girls tended to choose occupations that were traditionally associated with women and boys chose jobs that were traditionally associated with men. In fact, several studies point out that gender is the number one factor in explaining the career choice of elementary students—it has more of an impact than the students' interests, skills, abilities, the responsibilities of the position, and the amount of money paid (Davison, 1997; Helwig, 1998; Sellars et al., 1999). Likewise, in this study, gender, rather than age, was the main determinant of career choice and it was found that the career that participants chose for themselves was highly dependent on what gender they were. In this study, as in others, participants overwhelmingly chose careers that traditionally employed their respective genders.

Overall, instead of enjoying a range of occupational choices, it is obvious that, for young children, one of the factors involved in choosing a career happens to be the simple matter of being either a boy or a girl. It is apparent that boys and girls choose jobs based on gender stereotypes and aspire to positions that are dominated by their own sex. However, the results of several studies have led researchers to conclude that boys are more astringent in stereotyping about careers, often choosing occupations that were traditional to their gender, while girls were more liberal in their career choices (Davison, 1997; Reid, 1995). According to O'Brien et al.

(2000), this is likely due to how the female role in our society is viewed as more ambiguous and encompasses more activities—there is less clarity and structure regarding what is appropriate for women, while men’s roles seem to be clearer and more defined. Additionally, males are often viewed more prominently in society, which leads girls to learn about both male and female roles while boys may only learn about the male role (O’Brien et al., 2000). In O’Brien et al.’s (2000) research study, girls and boys had equivalent knowledge about the male role, but boys were significantly less knowledgeable about the female role. Also, the cross-gender behavior of boys is often reacted to and viewed more negatively than the cross gender behavior of girls (Blakemore, 1999). Yet, other studies have reported just the opposite—that girls overwhelmingly choose positions that fall along traditional gender lines, while boys are more likely to choose non-traditional gender occupations for themselves (Reid, 1995). Results of this research, however, found no significant differences in the degree of stereotyping between the males and females surveyed. When participants, despite whether they were male or female, were given a pictorial list of male and female occupations, the participants overwhelmingly chose occupations that fell in accordance with their gender and both boys and girls responded in similar patterns to questions about which gender would be more likely to perform certain jobs. In other words, boys said that men should be auto mechanics and girls said that men should be auto mechanics. Girls chose jobs that were traditionally female and boys chose jobs that were traditionally male. Overall, it was found that the male and female participants in this study exhibited equally stereotyped beliefs about what occupations were appropriate for men and what occupations were appropriate for women and chose equally stereotypical jobs for themselves as well. Similarly, it was found that all of the participants, regardless of their age, exhibited equally stereotyped beliefs about occupations. There has been evidence that, as children grow and develop, they are

able to think in more abstract ways. This has led researchers to conclude that occupational gender stereotypes lessen as children get older and are more capable of a broader level of thinking (Davison, 1997; Gottfredson, 1996; Helwig, 1998). However, when the second and fifth grade participants in this study were compared, participant ratings of career desirability were not dependent upon grade level. Contrary to previous research there was not a significant difference in the second grade ratings and the fifth grade ratings of the occupations—second graders chose careers that coincided with their gender just as much as fifth graders. Additionally, second and fifth graders had equally stereotyped ideas about what gender was appropriate for what job. Therefore, it is deduced that both males and females exhibit similar stereotypes about gender and careers, and that, instead of decreasing as children grow up, stereotypes form early and persist as children develop, quite possibly remaining prominent until the time comes to actually choose an occupation.

Results of this research and similar investigations seem to predominately conclude that both boys and girls of all ages have developed relatively salient stereotypes about males, females, and the jobs they are employed at. It can also be concluded that these stereotypes subsequently affect the careers children aspire to. The participants' rating of competence for each job description is particularly interesting, as perceived capability seems directly related to career choice. Students are going to choose careers that they feel they are capable of performing, and if they feel that one gender is more capable at an occupation, then they will choose jobs that coincide with that gender. Previous research, however suggests that, while boys and girls choose jobs that predominately employ their gender, they tend to rate men and women as equally capable to perform most jobs (Francis, 2000; Helwig, 1998; Reid, 1995). Yet, in this study, when participants were asked who could perform each occupation better, the participants almost

always responded that a woman would be better at the traditionally female occupations and a man would be better at the traditionally male occupations. This suggests children do actually believe that there are some jobs women can do better than men and some jobs that men can do better than women. However, this phenomenon may actually depend on the type of jobs that are being described. The occupational descriptions in this survey featured jobs that would very rarely employ people of the opposite gender. According to Reid (1995), children stereotype different occupations differently—for example, while a participant might say that only a male should be an auto mechanic, that same participant might also say that either a male or a female could be a doctor, which is traditionally a male occupation. Because female doctors are *seen* more commonly than female auto mechanics, it makes sense that children would assume that a female would be able to perform the doctor position more capably than the mechanic, simply because they have observed examples of female doctors more frequently than female mechanics. Reid (1995) suggests that for kids, who is capable of performing an occupation is actually equivalent to who they observe *doing* the occupation. That said, children's stereotypical ideas that a) a specific career is specifically for either a male or a female, b) one gender would perform the career better than the other, and c) they shouldn't choose the career if they are not of the dominantly employed gender, most likely is a result of predominately observing primarily males or females in that occupation. Findings of this study seem to corroborate with Reid's (1995) assertions. For example, interestingly enough, the participants' perceptions of the gender and capability of the neutral bus driver occupation was fairly evenly split—48% thought the driver was female and 52% thought the driver was male. Also, the doctor occupation was one of the few occupations that was rated as desirable both the boys and the girls, even though the medical field is dominated by males. In fact, it was the only gender specific occupation where ratings of

desirability were not dependent on the gender of the participant. Additionally, the neutral occupations (i.e. news reporter, baker, counselor, performer, and driver), which equally employed both men and women, were also rated similarly by the male and female participants and their ratings of desirability were not found to be statistically dependent on the participant's gender. It can be assumed that students frequently observe *both* genders working in these occupations and are therefore more likely to think that they would be appropriate for both males and females. Perhaps this would also explain why the participants in this study chose jobs for themselves that reflect the actual gender distribution of society's workforce. Girls and boys observe males and females working every day of their lives—through their parents, their schools, the books they read, the TV shows they watch. And since the work force they are observing is distributed so unevenly, it makes sense that they would form stereotypical ideas about careers. If kids predominately see women working as nurses, it is hard for them to understand that men are able to be nurses also. With children, a common theme tends to be “what you see is what you get.” Until children are able to see more men and women working in positions that contradict the sex typing inherent in today's workforce, children will continue to view jobs as open or closed to them because of their gender and subsequently choose jobs based on the simple fact that they were born a girl or a boy.

Limitations

There are several limitations to this study that need to be addressed. The first limitation involves the survey instrument, which was created by the researcher specifically for the purposes of this study. Therefore, the validity and reliability of the instrument have not been assessed. However, the instrument was based on instruments used in previous research. In fact, most studies published on occupational gender stereotypes also utilized instruments that were created

specifically by the researchers involved. An additional limitation involves the sample surveyed. It is not clear as to whether results can be generated to a larger population, simply because the sample set was small and lacked diverse participants. Also, participants may not have answered openly and honestly because of their young age, lack of understanding about the data collection process, carelessness, or because they may not have viewed the survey as important or interesting.

The survey was administered to six different classrooms on six different occasions, which made it impossible to insure that the environment was uniform during each administration. Therefore, environmental influences may have affected results. For instance, while administering the survey, the researcher described the duties of each occupation that was pictured. The way that each occupation was described most likely varied from occasion to occasion, so different wording was possibly used each time. This might have led students to respond one way in one classroom but not in another, since the occupation may have been described on each occasion in a way that may have sounded more or less desirable. Additionally, the classroom environment, particularly the second grade classes, tended to be noisy, the younger participants often spoke their occupational preferences out loud, and were often influenced by how the participant sitting next to them responded. These environmental influences may potentially limit the validity and reliability of results.

Another important limitation is that this study attempted to understand how occupational gender stereotypes may change as students develop cognitively. In order validly and reliably investigate this change, the study design would have to be longitudinal in nature, surveying participants while they were in second grade and then surveying those same participants again when they were in fifth. This would help determine if any observed changes were due to

development and not individual differences. However, time and other pertinent circumstances did not allow for the performance of a longitudinal study in this case, and therefore, it can not be said with certainty that occupational stereotypes do not change as students develop, since this lack of change may be associated with individual differences among the participants.

Recommendations for Future Research

It has well been established that gender stereotypes about occupations is an important topic for those working in the educational field. It appears that these stereotypes lead children to believe that one gender is more capable than the other at performing certain jobs, and also limits the job options they believe are available for themselves. It is important then, that research continues so educators are able to understand more about students' beliefs and attitudes about careers. This way, they can serve their students more effectively and efficiently. Results of this study show that stereotypes about jobs being appropriate for only men or only women exist and persist. It was also concluded that children predominately choose occupations for themselves that are traditional for their gender, quite possibly using their sex as the main determinant in their choice (Helwig, 1998; Sellars et al., 1999). It is readily agreed upon that stereotypes come from a variety of places and sources. Some are simply biologically related—males and females are genetically predisposed to be more efficient at certain activities (Gottfredson, 1996). However, it seems apparent that a major source of stereotypes is constructed from children's environments and society in general-- families, peers, teachers, and entertainment activities that children tend to enjoy, such as books, television, movies, and video games friends (Durkin & Nugent, 2000; Helwig, 1998; Kashey, 1993; Miller & Budd, 1999; O'Brien et al., 2000). And of course, a major source of stereotypes stem from simple, day to day observations of the men and women around them—the cashier at the grocery store, the auto mechanic at the car dealership, their after school

day care provider (Davison, 1997; Helwig, 1998; Sellars et al., 1999). The list seems infinite. Children form scripts based on their environment and organize information based on those scripts (Helwig, 1998; Miller & Budd, 1999; Sellars et al., 1999). Now, research needs to do more to pinpoint the various avenues that these stereotypes come from, whether some sources are more persistent or salient than others. Research also needs to ask what source seems to influence kids the most. If researchers knew more about the sources of stereotypes and their impacts, educators can in turn use those sources to combat stereotypes.

An additional recommendation for future research is to investigate the degree that gender plays a role in students' occupational decisions. How much of the students' career decisions are dependent upon their gender and how much is dependent upon a combination of other factors? It is readily agreed upon that gender does have an impact in regards to student's career aspirations, but it's important to determine what other factors may play a role, and to what degree gender does or doesn't overpower these other aspects. This way, educators can accentuate other facets involved in exploring and choosing careers while downplaying the role of gender. Therefore, students will be understand that there are other, more essential components involved in their futures, and that their gender does not limit the careers they can choose for themselves.

Implications for Educators

It is a well agreed upon fact among researchers and psychologists that children build and organize their knowledge bases according to their experiences, and the results of this study seem to support this notion. For kids, especially young children, gender is a primary characteristic used to classify people—it is one of the first attributes they use to describe themselves and other individuals (O'Brien et al., 2000). Simply seeing women predominately occupying certain occupations and men occupying other positions leads children to think that only one gender

works in that occupation, only one gender is more capable at that position, and if the child is not of that particular gender, the occupation is not open to him or her (Reid, 1995). As stated earlier, with children, “who should” and “who is able” is synonymous with “who does.” The best way to break this perpetual cycle of “men’s work” and “women’s work” seems to be promoting men’s jobs to women and women’s jobs to men, so that children are able to actually able to regularly observe men and women working in non-traditional careers on (Reid, 1995). This way, male nurses and female auto mechanics may become common and normal rather than an odd exception. The male and female stereotypes about careers that seem to be inherent in society need to be changed if we want children to be truly free to “be whatever they want to be.” Those in education, specifically those in guidance counseling positions, who are responsible for the social, emotional, academic, and vocational development of the future productive members of society, can take some important actions so that children will be able to enjoy a variety of career options instead of limiting themselves to careers choices that are determined by whether they are a boy or a girl.

One of the most essential actions educators can take is to begin talking to students about careers as early as possible. Many times, career development is left for later years, when it is considered more pertinent and relevant (Seligman & Weinstock, 1991). However, the majority of the second and fifth grade participants involved in this study, regardless of age, said that they thought a lot about what they wanted to be when they grew up, so students are already thinking and contemplating what careers to choose for themselves. Research suggests that the career development process starts early, and that the childhood years are deemed the ever-important “awareness years,” meaning kids are becoming aware of the world of work, the importance and implications of holding a job, and also, they are becoming aware of who they are and how that

may fit in with the careers they choose (Gottfredson, 1996; Niles & Harris-Bowlsbey, 2005). Contrary to typical beliefs, future careers are a very prominent concept for young children. Career development programs at the elementary school level need to be stronger and more holistic. Young students need to be aware of all of the factors that go into choosing a career—interests, education levels, compensation, responsibilities, skills, etc. They need to know that choosing a career is multi-faceted and there is a lot to consider. If students are already thinking about their futures, educators need to make sure they have the proper information and are not basing their ideas solely on what they observe in society. By targeting students early on, counselors can attempt to portray to students that at this point in their career development process, there are no jobs that are closed to them and that they should readily explore whatever they want to.

It is also important that counselors specifically set out to show students examples of people working in careers that are not traditional for their gender so that students are able to consider this as a normal occurrence, rather than something strange, atypical, or just plain weird. Results of this and other research also show that gender stereotypes form early on, and before the students have even fully developed their self-concepts, they have ideas about what is appropriate for males and what is appropriate for females (O'Brien et al., 2000). The second grade participants in this study already had clear ideas about what jobs were appropriate for women and men, and clear ideas about who would perform the jobs better. Additionally, the second grade participants predominately chose occupations that were predominately employed by the gender they associated with. This shows that children as young as eight years old are already limiting themselves in regards to career choice. Additionally, ideas about gender and occupations did not change much between the second and fifth grades—both grade levels exhibited similar

stereotypes and both the fifth and second grade girls tended to rate the traditionally female occupations as higher than the male occupations, while males from both grades rated the male occupations as higher than the female. Educators need to be extremely diligent at challenging and changing these stereotypes which can be done by planning activities, creating specific units, bringing in career speakers, or simply speaking with kids about their ideas. For example, results of this research may lead counselors to develop units specifically devoted to individuals who are successfully working in careers that are non-traditional for their gender. It is important that kids are able to see, hear, and talk about people who are successful working in careers where they may be outnumbered. Since with kids, what you see is what you get, students need to be saturated with observable experiences of individuals working in non-traditional occupations for their gender.

Finally, it is important that educators attempt to challenge male/female stereotypes in general. Children need to understand that, although males and females are in fact biologically different, the idea of gender is really socially constructed (O'Brien et al., 2000). Boys need to know that it is okay to have feminine qualities and interests, and girls need to know that it is okay to have masculine qualities and interests. Treating and portraying males and females equally in the classroom, encouraging boys and girls to play with one another, having androgynous toys in classrooms and guidance offices, and paying attention to books, movies, and pictures that may reinforce stereotypes are all ways educators can potentially reduce the male/female dichotomy constructed by society.

In conclusion, the elementary school years are a time of great exploration for students. They are learning about themselves—their interests, their values, their talents, etc.—and are thinking about how these factors may play a role in their futures. During these years, career

options should be limitless and wide open for kids. Unfortunately, aspects inherent in society today seem to limit how open the world of work actually is for students. Guidance counselors and other educators have a responsibility to help kids realize that there are no occupations off limits to them and that they are free to explore whatever career they desire. When students are asked “what do you want to be when you grow up?” it is essential that they know their answer does not have to depend on whether they are male or female.

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Appendix A: Consent Form

Dear Parents and Guardians of Halmstad Elementary 2nd and 5th Graders,

My name is Alison Ongna and I'm currently finishing up a master's degree in School Guidance Counseling at the University of Wisconsin-Stout. From now through the end of May, I will be working in the guidance office at Halmstad under the supervision of Halmstad's guidance counselor Sherry Jasper. The reason I am writing is to obtain your permission to allow your students to respond to a survey I have developed as part of my Master's degree thesis project. During the month of March, I will be coming into your child's classroom to deliver this survey. Your child was chosen to participate in this survey simply because he or she is enrolled in the 2nd and 5th grades at Halmstad. The students were chosen based only on age, not because of any other characteristics or classifications.

My thesis is entitled *Occupational Gender Role Stereotypes and the Career Perceptions and Aspirations of Young Children*, which is a very long title with a simple premise. Basically, I am trying to determine if and how occupational gender stereotypes, (for example, the stereotype that females should be nurses and not auto mechanics, males should be auto mechanics and not nurses) play a role in the occupational opinions and aspirations of 2nd grade and 5th grade students.

The students will be asked to fill out a three part survey in which demographic information (their gender, age, and grade level) will be assessed as well as their career aspirations (they will be asked to pick three careers from a list of 24), and then they will respond to questions asked about written descriptions of people working in various occupations. The students will not be asked to give their names on the survey, nor will any other identifying information be requested. Additionally, all responses will be kept strictly confidential. Your student's name will not be included in any form of documentation, nor will your student be able to be identified in any way. Participation in this survey is completely voluntary and is up to you and your student. There will be no consequences for deciding not to participate. If you choose to allow your student to participate and later wish to withdraw from the study, you may discontinue your participation at that time without incurring adverse consequences. However, the students involved will not be at any risk or experience any harm by participating in the survey, other than they might not understand what it will be used for, as understanding what research is and what it is used for may be a little confusing for kids of a young age. The survey is fun, asks interesting, engaging questions, and may help kids learn a little about themselves. Additionally, the information asked is impersonal and easy to respond to.

Overall, this survey has the potential to improve career development programs at the elementary school level, when career development and exploration is sometimes lacking and left for when students are able. Students will learn that no positions are restricted to them simply because of their gender. As a guidance counselor, I want kids to be able to explore and aspire to as many careers as possible. Understanding more about childrens' perceptions of careers and what jobs they think they are limited to will open up a lot of opportunity as far as units on career exploration and discovery go. Results of this research will allow guidance counselors to serve their students more holistically and efficiently.

I appreciate the opportunity to use your students as part of my research project. I welcome any questions or concerns you may have. You are also welcome to view the survey that will be distributed to your student. You can contact me via email at ongnaa@uwstout.edu, over the telephone at 715-379-4894, or in the guidance office at Halmstad on Mondays or Thursdays. You can also contact my research advisor, Dr. Denise Zirkle-Brouillard via email at brouillardd@uwstout.edu.

This study has been reviewed and approved by The University of Wisconsin-Stout's Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. If you have questions or concerns regarding this study please contact the Investigator or Advisor. If you have any questions, concerns, or reports regarding your rights as a research subject, please contact the IRB Administrator.

Thanks for your time.
Sincerely,

Alison Ongna
Practicum Guidance Counselor
Halmstad Elementary

Statement of Consent:

By signing this consent form, you agree to allow your student to participate in the project entitled *Occupational Gender Role Stereotypes and the Career Perceptions and Aspirations of Young Children*.

Name of student

Signature of parent or guardian:.....
(If minors are involved)

Date

Appendix B: Survey

<p>This project has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46</p>

These are some questions that just ask about who you are. With some of the questions, you can just circle the answer. With the other ones, you have to write the answer. Please answer the questions the best that you can—this is not a test. But, **DO NOT** tell me your name!

- Are you a boy or a girl? (Please circle)

I'm a Boy

I'm a Girl

- How old are you?

- What grade are you in? (please circle)

2nd grade5th grade

- Do your dad, mom, or the adults you live with, have jobs outside of your home? (please circle)

yes

no

- If you answered yes to the last question, what kind of jobs do your parents or guardians have (if you don't know, that's okay—you don't have to answer)?

- Do you ever think about what kind of job or career you would like to have when you grow up? (please circle)

yes, a lot

sometimes

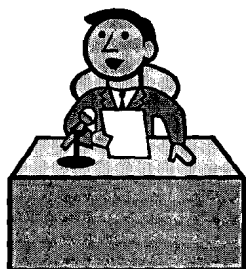
no, not really

What do you want to be when you grow up? These are some pictures of different jobs that people have. If you were going to choose a career for yourself right now, which of these would you choose? Circle the number ONE if you would really like that job. Circle the number TWO if you would only kind of like that job. Circle the number THREE if you wouldn't like that job at all. Then, circle the picture of the job you want the most. If the job that you know you really want isn't pictured, that's okay, you can still want that job, but please only pick from the ones that are shown...



AIRPLANE PILOT

1 2 3



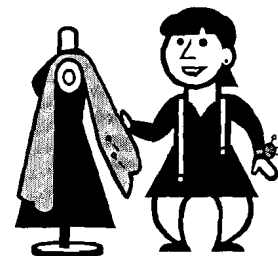
NEWS REPORTER

1 2 3



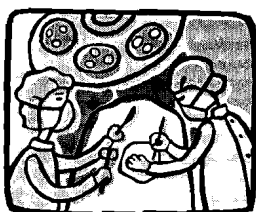
ARCHITECT

1 2 3



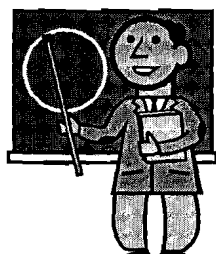
TAILOR/SEAMSTRESS

1 2 3



DOCTOR

1 2 3



TEACHER

1 2 3



SECRETARY/RECEPTIONIST

1 2 3



COUNSELOR

1 2 3



CONSTRUCTION WORKER

1 2 3



DRIVER

1 2 3



SCIENTIST

1 2 3



TRAVEL AGENT

1 2 3



NURSE

1 2 3



CASHIER /SALES CLERK

1 2 3



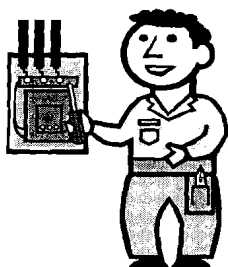
MILITARY/SOLDIER

1 2 3



CHEF/BAKER/COOK

1 2 3



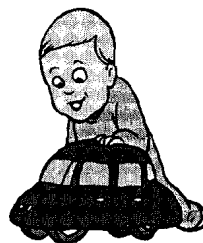
ELECTRICIAN

1 2 3



HAIRSTYLIST

1 2 3



CHILD CARE PROVIDER

1 2 3



AUTO MECHANIC

1 2 3



LIBRARIAN

1 2 3



FIREFIGHTER

1 2 3



CARETAKER/GROUNDKEEPER

1 2 3



PERFORMER

1 2 3

The following paragraphs describe a person working at a job. Read each paragraph carefully and then put a circle around your response.

I have a fantastic job that I love! A large part of my day is spent assisting doctors in caring for the sick and injured. I give out medicines and do tests and care directly for the patients that I'm assigned to. Without me it would not be possible to treat the many who require medical treatment. I work in a hospital, but not all those who have my job do. Some work for private doctors, some work in clinics, some work at nursing homes and care for the elderly. No matter where we work, our jobs are incredibly important and there is always a need for us.

Do you think this person a man or a woman?

1	2
MAN	WOMAN

Who would do this job better, a man or a woman?

1	2
MAN	WOMAN

Would you like to do this job?

1	2	3
NO!	Maybe	Yes!

I have quite the job! It definitely keeps me busy and no day is ever the same! Every morning, when moms and dads go to work, they drop their kids, who aren't old enough to go to school yet, off with me so I can take care of them until the end of the work day. I organize games and activities for the kids, feed them lunch, give them snacks and put them down for their naps. Every once and awhile we go on little field trips or go to the park. Mostly, I make sure the little kids are safe and well taken care of. Sometimes I feel like I'm at the zoo, but it's a fun, rewarding job and I love every minute of it!

Do you think this person a man or a woman?

1	2
MAN	WOMAN

Who would do this job better, a man or a woman?

1	2
MAN	WOMAN

Would you like to do this job?

1	2	3
NO!	Maybe	Yes!

Chances are, I'm probably not your favorite person to see, since I work in a dental clinic, which is a place that most kids do not like to go! I like my job though! I am in charge of cleaning and examining your teeth, taking x-rays of your mouth, and sometimes I talk to you about stuff like brushing correctly and making sure that you floss. I use lots of little metal tools that scrape your teeth and clean your gums. When the dentist comes in to check your teeth, I assist the dentist and hand out instruments and we talk about what's going on inside your mouth. I'm a big help to the dentist. While I'm doing routine check-ups, the dentist can be doing mouth surgeries, filling cavities, and pulling teeth. I'm glad that I don't have to do those jobs!

Do you think this person a man or a woman?

1	2
MAN	WOMAN

Who would do this job better, a man or a woman?

1	2
MAN	WOMAN

Would you like to do this job?

1	2	3
NO!	Maybe	Yes!

My job can be kind of dangerous! I work with electricity and power sources, so I help to make sure that make your lights and your video game machines and computers turn on. Like I said, electricity can be dangerous, so specialists like me are needed to work with it to guarantee that its uses are safe and proper. There are many different types people who have my job. Some work in construction, some work with electrical power companies, some work with oil generated power, others with water generated power. Usually, someone like me has to come to a building and perform all electrical work and certify that it is properly done and safe before the place, whether a home or hospital, school or office building, can be used.

Do you think this person a man or a woman?

1	2
MAN	WOMAN

Who would do this job better, a man or a woman?

1	2
MAN	WOMAN

Would you like to do this job?

1	2	3
NO!	Maybe	Yes!

I have to use my hands a lot at my job. When someone's car breaks down, they bring it to me and I look at all of its parts and run tests to try and find what is wrong and also how to fix it. All people with my job try to fix things and keep them in working order, but, like with most jobs, not all of them work on cars. There are people who try to fix and maintain other things, like air conditioning and refrigeration, heaters, even airplanes! I love my job and have a great time at work every day!

Do you think this person a man or a woman?

1	2
MAN	WOMAN

Who would do this job better, a man or a woman?

1	2
MAN	WOMAN

Would you like to do this job?

1	2	3
NO!	Maybe	Yes!

I have a great job that keeps me very busy. I get to build houses and buildings and mostly, I work with wood. In the construction of buildings, I make wood floors and hang doors and build wooden wall interiors. I even create doorframes and windowsills and paneling to keep us warm when the wind blows and dry when the rain falls. I use many different tools such as saws and hammers to cut wood and hold it in place. I use tape measures and rulers to measure spaces and the size of the wood needed for the project on which they are working. I use planes to shave the wood ever so little so that doors and windows don't stick. Everywhere you go you can see my work all around, even at home.

Do you think this person a man or a woman?

1	2
MAN	WOMAN

Who would do this job better, a man or a woman?

1	2
MAN	WOMAN

Would you like to do this job?

1	2	3
NO!	Maybe	Yes!

I get to meet a lot of interesting people on my job. I work for my city's public transportation system and I drive a huge bus around town, picking people up and dropping people off so that they can get from place to place. Sometimes the bus gets pretty crowded and there aren't enough seats for everyone. Plus, sometimes traffic is really busy. That gets tough, but most of the time I like the job, and I like talking to my passengers, and it makes me feel good that I help them get where they need to go.

Do you think this person a man or a woman?

1	2
MAN	WOMAN

Who would do this job better, a man or a woman?

1	2
MAN	WOMAN

Would you like to do this job?

1	2	3
NO!	Maybe	Yes!

Hey! You're DONE!

Thanks for helping me out by filling out my survey! Please let me know if you have any questions. I'd be happy to answer anything or let you know more about my project, like what exactly a thesis is, what I'm going to do with the survey now that you've filled it out, or all the other things I had to do to get ready for my project. You know where to find me!