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FROM HIS-STORY TO HER-STORY: THE EVOLUTION OF THE PSYCHO- EDUCATIONAL CONCEPT OF THE GIFTED FEMALE

Alyson Noelle Nemeth

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THE UNIVERSITY OF WESTERN ONTARIO
SCHOOL OF GRADUATE AND POST-DOCTORAL STUDIES

DEPARTMENT OF EDUCATION

Author

Thesis Board

**FROM HIS-STORY TO HER-STORY: THE EVOLUTION OF THE PSYCHO-
EDUCATIONAL CONCEPT OF THE GIFTED FEMALE**

Dr. Robert D. H. ...

(Spine Title: From his-story to her-story)

Thesis format

(Thesis format: Monograph)

by

Dr. Robert D. H. ...

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Graduate Program in Education

**A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Education**

2

**School of Graduate and Post-doctoral Studies
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London, Ontario, Canada**

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THE UNIVERSITY OF WESTERN ONTARIO
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From his-story to her-story: The evolution of the psycho-educational concept of the gifted female

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requirements for the degree of
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Date

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ABSTRACT

The present study asked the question: Why does the psycho-educational concept of the 'gifted female' exist? In an effort to determine why the gifted female came to be a separate category within the field of educational psychology, the pearl harvesting information retrieval method (Sandieson, Kirkpatrick, Sandieson, & Zimmerman, 2010) was employed to gather extensive literature about gifted females. Academic literature and research about gifted females from the past 100 years was collected and analyzed in a chronological format.

It was found that literature about the gifted female fell into five chronological phases. Phase I of gifted female literature focused on the absence of eminent women and the revelation of gifted females and gifted males possessing equal intellectual abilities. Based on the previous research of Phase I, Phase II discussed and acknowledged that gifted females were a type of 'problem' due to their masculine behaviours. Following Phase II, Phase III transitioned from viewing the gifted female as a problem to, instead, viewing her external surroundings as preventing her from excelling. In response to the identification of these numerous barriers, Phase IV then presented a variety of curricular and educational modifications that could be used to help gifted females become successful. Finally, Phase V, the most current phase, critiques the approaches and goals that educational psychologists have developed for gifted females.

Keywords: Gifted females; Barriers; Curricular modification

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Figure 1 The Model of Female Talent Development 85

As first, the model describes the stages of female talent development. The model is based on the study of female talent development in the population that reflected the gender. In a sense, the model was constructed with the history and struggles of female talent development in the United States. In relation to the history, the model was of major interest. It is a model that reflects the general experience of female talent development. The model is the result of a research on female talent development in the United States. It is a model that reflects the general experience of female talent development in the United States.

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CHAPTER 1: INTRODUCTION

Within the educational psychology literature, the 'gifted female' is a subject of research and conversation that has evolved over a hundred years of academic literature. At first, she was recognized for simply being unrecognized and absent. As she became increasingly acknowledged, she became known for the challenges that affected her gender. In a sense, her identity was associated only with the challenges and struggles she faced as opposed to her strengths. Her social role in relation to the Western society was of major interest and in essence, defined the tone and approach toward understanding the gifted female. How could she fulfill her potential as a gifted person when she was conventionally expected to marry and bear children?

Gifted females emerged as a subject not just about problems, but as also an object of educational change and reform. Research about educational reform and re-structuring the educational environment to better enhance her surroundings surged in an effort to nurture her potential. Amidst these educational and curricular modifications that were devoted strictly to the gifted female, her life and her career and life path became a focus of change and control from researchers, as they outlined careers and life paths that were believed to be the most suitable for gifted females.

Today, the repercussions of planning and educational modification are evident and within the last ten years, a new set of literature has begun questioning the educational approaches that were constructed for gifted females. Researcher Colleen Willard-Holt (2008) critiqued the extant literature for being too dominant in forcing gifted females into certain life paths and failing to allow gifted females to choose their own life paths. However, before questioning the researcher's intentions for gifted females, it is crucial that attention be directed toward the assumptions about gifted females that create a

foundation for such gender-specific educational and career planning. In order to investigate these assumptions, it is important to ask: Why does the gifted female exist?

This study explores the origins and history of the gifted female as a separate gendered category within educational psychology. By analyzing the psychological literature on gifted females across time, I explore how ideas about women and giftedness have shifted. Presented over five phases, the thesis will examine the different trends and concepts that have dominated the literature. In other words, this thesis examines how “the gifted female” has evolved as a gender-specific category over a certain period of time.

Rationale

From an academic perspective, there is no known curricular differentiation that has been consistently applied and used, specifically, for gifted females, which prompts further inquiry of exactly why the category of the gifted female exists. Because no known curriculum has been regularly administered to gifted females, this study will investigate why the gifted female continues to exist as a separate category from gifted males.

Another reason for conducting this work is because no other study or author has addressed the “gifted female” as an evolving educational psychology concept throughout academic literature. Instead, the gifted female is repeatedly assumed as an established stable gender-specific category and furthermore, she is continually adopted as the same person with the same traits and characteristics in each study. Although the existing research highlighted pivotal themes and problems that gifted females experienced, one can argue that it is important to investigate the deliberate and non-deliberate intentions behind the research that was conducted on gifted females. The influence of deliberate and non-deliberate intentions has a profound effect on the research and the goals that

many studies set to achieve. It is essential that the origins of the concept of the gifted female and gifted female research are thoroughly analyzed and discussed and this can only be done by gathering all the prominent literature on gifted females beginning in the early 1900s through to the present. Most studies have been specifically linked to the time period in which they were conducted. The category of "gifted female" has an evolution with specific turning points and very few researchers have considered the history and overall development of the gifted female category within education. In order to gain a fuller understanding of the contemporary consideration of what the category of the gifted female consists of, a full understanding of the historical situation seems necessary. Research needs to acknowledge the historical perspective in order to understand how we have arrived at the current context.

Quite possibly the most important reason why I will attempt to analyze the history of the gifted female over a one-hundred year period is to participate in an important aspect of the educational system, that being, to question pre-existing beliefs related to education and the various influences that affect educational policy and practice. Based on the pre-existing psychological literature on gifted females, there has been little consideration within the history of the gifted female as an educational psychology concept. Therefore, the need to understand the origins of this gender-specific category is essential.

Through this analysis it can be argued the exceptionalism of giftedness was established. However, giftedness was defined and not a standard to represent intellectually advanced children.

The specific type of instrument that was used in the time to estimate intelligence was the Stanford-Binet Intelligence test. The Stanford-Binet Intelligence test was used

CHAPTER 2: METHODOLOGY

The literature used for this study reveals a thought-provoking portrait of the gifted female and her position in relation to North American society. What is most fascinating about the literature is that ideas and concepts are adopted and shared among researchers and authors, creating a community of knowledge and mutual understanding about the gifted female. Yet much of this literature is founded on pre-existing assumptions about the gifted female without much data to explicitly validate such assumptions. As a result, the literature requires an in-depth analysis to identify these assumptions and to gain a better sense of exactly why giftedness evolved into a gender-specific category. To better understand the gifted female as a gender-specific category, it was imperative that the extant literature be used as a main source of data. The thesis applied a critical historical analytical approach to understanding the existing literature.

Giftedness: History and Definition

Within the context of this thesis, it is important to address the history and changing definition of giftedness. Although elements of the concept of giftedness today have their basis in work done one hundred years ago, giftedness has in fact changed in terms of how it is defined and understood within educational psychology. When giftedness was first studied in the mid 1920s, it was studied in detail by a series of longitudinal studies conducted by researcher, Lewis Terman (e.g., Terman, 1925). Through these studies, it can be argued the exceptionality of giftedness was established. However, giftedness was understood and assumed to represent intellectually advanced thinking.

The main type of assessment that was used at the time to measure intelligence was the Stanford-Binet intelligence test. The Stanford-Binet intelligence test assessed

individuals for their general intellectual abilities, also known as Intelligence Quotient or IQ (Coleman & Cross, 2001). The intelligence quotient, which compared individuals' scores with population norms, became the popular and widely used way to describe and to identify intelligence among individuals. With Terman's research and his application of the Stanford-Binet intelligence test to his participants, the association between IQ and giftedness was strongly established (Terman, 1925). The problem with IQ as a definition or way to describe giftedness was that it was limited in its ability to recognize achievement and non-intellectual forms of giftedness, such as visual artistic talent, musical talent and other creative abilities.

For the next 50 years, giftedness continued to be defined within an intellectual context. However, new research began to suggest that the definition of giftedness needed to be expanded. In 1965, creativity researcher, E. Paul Torrance, drew attention to the concept of creativity as a type of giftedness (Coleman & Cross, 2001). In a study, he analyzed a group of gifted persons that he termed, "creatively gifted." He noted that this particular group experienced giftedness in different ways and would choose less orthodox paths of life. Within this group, the persons had increased social disinterest, more interest in solitary pursuits, and less need for social acceptance. This group differed much from other portraits that had been drawn of gifted persons being leaders, and more socially adjusted. Like giftedness, there is no one single uniform definition of creativity and the most common words used at the time to describe creativity were "originality" and "novelty." Similarly, genius was also defined as being one who makes a significant contribution to society. However, creativity was different from giftedness in that it addressed creating something new in one's own environment, not necessarily for society.

In 1972, the definition of giftedness changed. A momentous approach toward the development of an inclusive and concise definition of giftedness was proposed in the Marland Report (United States Commissioner of Education, 1972) to the U. S. Congress (Coleman & Cross, 2001). The Marland Report highlighted that gifted individuals demonstrated high performance in six specific abilities. These six abilities are: general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, visual and performing arts, and psychomotor ability. The Marland Report is significant because it provides a well-rounded definition of giftedness that encompasses a wide variety of outlets and expressions of giftedness, rather than just narrowing giftedness as being strictly academic, creative, or social.

Although there are different conceptualizations of giftedness and creativity among persons, within the scope of this thesis 'gifted' and 'giftedness' will be used to refer to females who have been recognized with at least some forms of academic gifts or have a substantially higher than average IQ. The reason for doing so is not to perpetuate the assumption that giftedness is strictly an exceptionality that recognizes only intellectual strengths, but instead, because several studies, especially those before the introduction of 'creativity' as a type of giftedness, only conducted research perceiving giftedness to be related to a high IQ. Furthermore, when the 'gifted female' category was founded, the belief that IQ was the main and strongest way to assess intelligence was dominant. Even today, when giftedness is considered broadly, some form of higher IQ is also included in the concept.

The Literature on **Chronological Phases**

The literature is presented chronologically in five separate phases. The reason why the data are presented in a chronological format is to demonstrate the ways in which

certain assumptions have been adopted and shared in the literature over time. It also allows for the illumination of various trends and assumptions, which can then be identified and critiqued. The reason why the literature was grouped according to phases is simply because the literature evolved over certain clusters of time, which will be referred to here as phases. Within these time clusters, certain ideas evolved and were more prominent and therefore, characterized the literature of that phase. The different phases are linked to one another and a chronological format enhances the exchanges of concepts. When a question has been asked in one phase of the literature, the question will then linger and be revisited within a new conceptual lens in a following phase. In my analysis, it was found that gifted female literature occurs in five phases: I) absence of eminent women, II) problems of the gifted female, III) external barriers, IV) solutions and educational modifications, and V) internal barriers in the individual gifted female.

Pearl Harvesting Information Retrieval Search Method

In order to conduct a thorough literature search, the pearl harvesting methodological framework for information retrieval (PHMFIR) was employed using a variety of search techniques and search terms (Sandieson, Kirkpatrick, Sandieson, & Zimmerman, 2009). The PHMFIR prescribes selecting representative samples of articles of a body of literature and from these samples are relevant keywords conducive to a successful article search are extracted. A variety of "gifted" search terms exist, and Boolean search term combinations were used (e.g., 'gifted' AND 'female'). Numerous terms of 'gifted' were used in combination with synonyms for 'female.'

The first list for search terms for 'gifted' was taken from the list provided by McIsaac (2006): 'High aptitude' OR 'intellectual aptitude' OR 'greater aptitude' were terms that specified gifted aptitude. Various forms of 'intelligence' were used, such as

'high* intelligence*' OR 'high IQ' OR 'superior intelligence' OR 'superior IQ' OR 'greater intelligence' OR 'intellectually superior' OR 'superior academic' OR 'academically superior' OR 'academically advanced.'

Variations of the forms of 'ability' were also used. 'High ability' OR 'highly able' OR 'superior ability' OR 'greater ability' OR 'advanced ability' OR 'high academic ability' OR 'superior academic ability' OR 'superior thinking ability' OR 'high cognitive ability' OR 'greater cognitive ability' OR 'superior problem solving.' Different forms of 'creativity' were included in the terms for 'gifted.' 'High creativity' OR greater creativity' were additional forms of 'creative.' 'Talented student*' OR 'Talented Child*' will also be used. 'Bright child*' OR 'bright student*' OR 'Mensa' was also used.

'Precocious' was another term for 'gifted' that was used to search the database. Search terms that were employed for 'female' included the following: 'girl*' OR 'woman*' OR 'women' OR 'female*.' The actual search used all the gifted terms in the first search box joined by the Boolean "OR" and all the words for 'female' joined by the "or" were entered into the second line of the search and the two key word lists were joined by the Boolean "AND."

Because the online search was a critical part of gathering data for the study, it was vital that lists of search terms for 'gifted' and 'female' were exhausted to the fullest degree. The search terms developed for the search and the search method by which the search terms were combined with other search terms were equally important and increased the likelihood of locating useful data. This process resulted in relevant academic articles that were suitable for discussion in my thesis.

Eligibility Criteria for Inclusive Data

Articles and studies that were used for the study were found on the following databases: *PsycINFO*, *ERIC*, *Dissertation abstracts online*, *ProQuest Education Journals*, and *Google Scholar*. Journals that were hand-searched were: *Journal for the Education of the Gifted*, *Gifted Child Today*, *Advantage: Disadvantaged Gifted*, *Gifted Education International*, *Roeper Review*, *Gifted Child Quarterly*, *Genetic Studies of Genius*, and *Vocational Guidance Quarterly*. The literature search used the following criteria for inclusion:

1. Articles and studies that were published between 1900 and 2009. It was very important to trace the historical origin of the "gifted female" category beginning with the early twentieth-century.
2. Data used for the study were any published journal article from an online or print journal, published monographs, published chapters within edited collections.
3. Studies and articles selected for the study were to include information and statistical data about gifted male/female characteristics and traits and/or differences.
4. Articles and studies that addressed gifted females from a variety of age groups: gifted adolescent females, gifted early adolescent females, and gifted women.
5. Articles and studies used for the study addressed a variety of topics and issues related to the gifted female such as career choices, lifestyle choices, educational choices, and achievement.
6. Data adopted for the study could come from published qualitative, quantitative, or opinion essays that were written in the English language.

In an attempt to provide a detailed overview of academic literature about gifted females, an in-depth electronic literature search (over a 14-month period) was supplemented by a detailed manual search of the foremost journals and texts on the subject. While this historical account is not claimed to be completely exhaustive, I am confident that it

provided a comprehensive chronological account of the most influential works since gifted females became a subject of interest over one hundred years ago (Roeper, 2003).

Limitations

It is very important to highlight that the types of literature that were used for the study were limited in that the focus is on peer-reviewed literature, specifically literature that contains and emphasizes certain methods that were used by educational researchers. This is an important limitation to highlight as it demonstrates the narrow context in which educational psychology often defined 'giftedness.' The preference for this knowledge evolved in relation to the development of the Intelligence Quotient, which tested and demonstrated knowledge to be logical, scientific as opposed to creative and artistic. Also, the literature found in these databases is predominantly from American authors. This does, of course, create a bias toward the American perspective, which may be somewhat different from Canadian or other perspectives. However, since the interest here is on how giftedness was perceived by educational psychologists, the American view is dominant. It should be noted that the PHMFIR would not locate and identify any non-refereed or non-traditional publications from small feminist journals or presses. This reality may somewhat skew my analysis by neglecting the most critical analytical writing on women and intelligence or giftedness.

CHAPTER 3: PHASES OF PSYCHOLOGICAL CONCEPTUALIZATION OF THE

GIFTED FEMALE

This section provides a history of the existing research on gifted females over five chronological phases. Within this section, a detailed summary of the phase is followed by an analysis of the existing academic literature that characterized that phase. The summary highlights traits and important aspects that were representative of the literature of that phase.

The approach and method used for this thesis was selected for a number of reasons. It was necessary because the literature review served two different but related purposes. First, it provided an overview of the relevant literature. Second, it also provided an analysis using a chronological historical account of when and how the distinct research topic of 'gifted females' emerged and evolved over a century. Thus, this part of the thesis is both a highly comprehensive literature review and an historical analysis. It demonstrates that academic literature about a subject often adopts certain ideas and theories from pre-existing literature.

Phase I: Absence of Eminent Women and Early Revelations and Implications of**Equivalent IQ scores (1914-1960)**

This is perhaps more of a pre-phase in that the birth of the "gifted female" as a gender-specific category evolved out of the evident absence of eminent women. Phase 1 is best described as being a phase that focused on the presence or lack of intellectual abilities of gifted females. Yet many of the essential themes that would dominate and mould gifted female literature were first discussed in this phase. During the early twentieth-century, there was great debate about gender differences and intelligence.

Rather importantly, during Phase I, researchers sought to identify the intellectual ability of gifted females. This intelligence was understood to be largely intellectual and academic and there was no consideration of creative talents. The first data collected about gifted females reflected academic test scores and gifted females' performance within the classroom. This pursuit to determine the intellectual abilities of gifted females within the educational setting would become highly influential in future educational research. Based on the data collected in Phase I, the gifted female entered educational psychological literature and in doing so she was instantly recognized as a legitimate category for study.

During this phase, the first connection between gifted females and career development was established. With this focus on gifted females and their occupations came the assumption that gifted females could and should be in the higher professional occupations that men typically occupied. Although it was still early in the history of the gifted females literature and not much was discussed in relation to gifted female outcomes, this initial focus would have a major influence on the literature and research to follow.

Within this phase, there is open acknowledgement that being female and being gifted created problems. This was an important aspect of this phase as it established a connection between being a gifted female and encountering struggles, and was to prove a pivotal ground for further research in the decades to come. Furthermore, it would promote the notion that gifted females indeed warranted a separate category status. It seemed as though the gifted female's problems were connected to her social role, yet this belief was yet to be confirmed or further explored.

Based on the rich and extensive history of male achievement, it appeared that men were far excelling women in science, inventions, and business. Men had been recorded as the great geniuses and inventors since the origins of humanity. As a result, the prominence of male scientists and inventors implied that men were naturally, genetically and biologically superior to women in certain domains, and thus, more intelligent.

Theories regarding male intellectual superiority began surfacing and constructed male intellectual superiority as a scientific fact. Of course, this perception and argument ignored the fact that women did not have opportunities of privilege and therefore may not have been in a position to demonstrate their evolutionary adaptability fully.

Leta Stetter Hollingworth, an accomplished and influential academic who experienced setbacks due to her sex, addressed the thriving debate regarding sex and intelligence. She confronted the theories that men were more intelligent due to greater genetic variability and that women could never be eminent due to structural and external barriers, such as marriage and childbearing that prevented them from seizing opportunities to be eminent. In an effort to challenge such theories, Hollingworth (1914) presented findings from pre-existing studies that illustrated greater variability and high intellectual ability amongst girls, and demonstrated that females performed equal to or better than males.

Hollingworth concluded that there was similar variability between males and females and argued that even if men were somehow proven to be more intellectual beings with higher intelligence scores, it would still be a scientific impossibility to prove that men were inherently more intelligent than women because of the social and environmental opportunities that favoured men.

Hollingworth's (1914) criticisms of the widely accepted theories in support of superior male intelligence were incredibly significant as she demonstrated the first

scholarly and perhaps social initiative to question the basis of such theories in educational psychology. Furthermore, she opened the door for future research to determine intellectual differences between the sexes, if any. Ultimately, Hollingworth's data and conclusion shook the pedestal on which male intellectual superiority was firmly planted and she simultaneously inspired curiosity about female intelligence and the possible hidden potential. However, little was known about what made a person intellectually gifted. In many ways, 'genius' was a term that referred to intellectual giftedness. Giftedness was not yet officially recognized as an exceptionality that warranted specialized education, but a quest was started to study and determine the nature, characteristics, and traits of intellectual giftedness.

In 1918, Genevieve L. Coy presented the first individual profile of a gifted female in "The Mentality of the Gifted Child." The gifted female named M. F. was a ten-year old in grade 5 who had caught the attention of her teacher due to her outstanding academic abilities. She performed well on the Stanford-Binet intelligence test, and demonstrated the mental age of a 16 year old. As a result, she was placed in the gifted class at her school. Although Coy (1918) gave little attention to M. F.'s personality traits or social interests, observations were made about M. F.'s interactions in the schoolyard, playing with other children. Coy reported that M. F. exhibited more male behaviours compared to her non-gifted female classmates and that one male friend described M. F. as being adequate enough for boys to play with. At home, M. F. participated in domestic chores and activities that her mother encouraged her to complete; however, she demonstrated strong resistance to several domestic tasks. When asked about her career interests M. F. said she wanted to be a teacher of music and the dramatic arts. Interestingly, at this point in the study, the issue of 'male traits' first surfaced as a

confusion of what is 'female' without acknowledging the range of female/male trait variability in both sexes. This would not be the only and final time that this issue would arise.

Although Coy's (1918) study only showcased the life of one gifted female, it was extremely important because it portrayed the potential and the reality of a female as being a highly intelligent person. Academically, M. F. was a gifted female who represented all the traits and characteristics known to be common in gifted children at the time. Within the social context, the schoolyard, her gender identity was that of a female. Yet it was within the schoolyard that she displayed traits that were more prevalent among boys. Her rejection of domestic chores and activities also highlighted her gender as she resisted partaking in these expected stereotypical tasks. It is unclear whether Coy deliberately chose a female subject for her study as a political statement to display an intellectually capable female.

Where Have All the Female Geniuses Gone?

Leta Stetter Hollingworth (1914) and Genevieve L. Coy (1918) can be acknowledged for initiating the first research and presenting the first data about gifted females. Coy was the first to address the structural barriers that prevented women from becoming eminent.

Although male researchers had continuously stated that males were more intellectually capable due to biological superiority, the fact that there were simply more male scientists, artists, and inventors caused Sylvia Kopald (1924) to transform a common statement into an influential research question: "Where have all the female geniuses gone?" Instead of complying with the ever-popular beliefs regarding male intelligence and superiority, she argued that history, art, and culture had been created, dominated, and moulded by male geniuses, thus making it quite difficult for any female to exercise her genius within this

constricting environment. She further claimed that some women were, in fact, geniuses, but that negative social expectations had prevented them from becoming recognized as such. These social expectations rendered the female as housekeeper, housewife, and mother, and depicted the man as an intellectual and career-oriented figure. Kopald believed male intelligence and achievement was not genetically inherent, but social expectations that allowed males to succeed.

Kopald (1924) questioned the “career” of motherhood and its effect on women and their ability to achieve beyond the confines of the home. In addition to the oppressive social expectations of women, she linked the expectations of motherhood to the lack of female geniuses, as motherhood required women to remain in the home with children. Kopald can also be credited with being the first to suggest educational reform and differentiation for gifted women. She suggested that the educational system be enhanced at the elementary level for females so they could develop their intellectual strengths at a younger age and carry their skills and abilities to higher levels where men typically dominated. Kopald was following Hollingworth’s (1914) path by stating that it was not intellectual differences but social differences that separated men from women and that these differences affected the extent to which members of each gender can exercise his or her potential and, thus, achieve. Kopald’s work was groundbreaking because she focused on the larger social systemic sphere that she believed was responsible for ensuring that females were not allowed the opportunity to be geniuses, and stated that existing cultural conditions were “oppressive” and “restrictive” for the female. These elements of her work would become a springboard for future research and discourse on the gifted female. Her belief that society prevented women from reaching their potential

would become a widely embraced doctrine among gifted female researchers and henceforth would come to dominate the voice and the goals of gifted female research.

Kopald's (1924) ideas were easily accepted and welcomed within the historical and political context of the early 1920s. Women had just gained the right to vote and strides were being made to propel women into male-dominated territory, especially in the workplace. Although Hollingworth (1914) and Kopald provided convincing reasons for why women were not achieving like men, they still lacked studies that provided valid proof that social and cultural expectations were responsible for women's perceived intellectual inadequacies. It was during this time that Lewis Terman (1925) conducted several elaborate studies and detailed analyses of gifted children and revealed insights into the gifted female which had only been lightly touched upon to this point. Terman's studies provided clarity and, importantly, a research evidence-based answer to the burning question regarding intelligence and gender.

Terman's Genetic Studies of Genius

Lewis Terman (1925) contributed to Hollingworth's (1914), Coy's (1918), and Kopald's (1924) push for further inquiry addressing the absence of the female genius. As a very prominent researcher in the field of giftedness, Terman provided contributions to the field of giftedness that would play a vital role in the origins of the gifted female as a gender-specific category. Lewis Terman's work demonstrated quantitative similarities between gifted males and gifted females, but concurrently drew attention toward fundamental non-academic differences that warranted gifted females a separate category. Lewis Terman's (1925) use of standardized intelligence testing (i.e., IQ data) contributed to closing a gaping hole of evidence in gifted female research. In Terman's (1925) *Genetic Studies of Genius, Volume 1 titled: Mental and Physical Traits of a Thousand*

Gifted Children, he gathered data and information to construct the most elaborate and detailed study of gifted children to that date. The participants were selected for the study based on their performance on the Stanford-Binet test, National Intelligence Test, and the Army Alpha. These measures were scientifically accepted due to their proven psychometric validity and reliability.

The participants were required to complete a variety of tests and assessment measurements regarding their intellectual and personal traits. First, participants completed the Stanford-Binet intelligence tests so their IQ could be determined; second, a two-hour educational test was administered to each participant; third, each participant completed a 50 minute test about science, history, and literature; fourth, each participant was asked to complete a 50 minute test about games and amusements; fifth, each participant was given a two-month reading record whereby he or she would record reading materials and habits; sixth, each participant's family was asked to complete a 16-page Home Information; seventh, the participant also had his or her teacher complete a School Information package; and eighth, each participant would be rated in relation to their home life and family relations by their parents. As detailed and lengthy as Terman's study was, his work was groundbreaking in that it first exposed the many lives, talents, interests, and intellects of gifted persons in a way that had never been revealed before. Throughout Terman's descriptions of the study and discussions of the results, the terms "genius," "intellectual precocity," and "intellectual giftedness" were synonymous with one another; therefore, no distinct differences were drawn between "genius" and "gifted" at this point. No longer were gifted children being studied exclusively for their intellectual abilities; instead, they were being studied for their personal and social traits, which had been mostly a mystery to that time. The extensiveness of these studies

provided crucial information about gifted females and these data would have a lasting and profound influence on the way gifted females would be researched, studied, and perceived during the century.

Terman (1925) found that when girls and boys were tested for school accomplishment and intellectual ability, the reported mean IQ was equal for both genders at 151.6. Terman's finding revealing similar IQs between girls and boys was possibly the most profound contribution made to research in giftedness. Hollingworth's (1914) and Kopald's (1924) contention that gifted females could be equally intelligent to males was finally supported, confirming the equal distribution of intelligence among males and females. And since males and females were equally intelligent, Kopald's argument that society and cultural expectations were to blame for the suppression of female intelligence and genius had a much stronger foundation.

Within Terman's (1925) data, smaller differences were recorded regarding the nature of one's intelligence; gifted boys tended to be stronger in mathematics, whereas gifted females were stronger in languages. Terman also noted that gifted males tended to prefer literature that was adventurous whereas gifted females preferred literature that was considered "emotional" and while gifted girls surpassed boys in social interests, gifted boys surpassed gifted females in activity interests. It was also noted that while gifted males and gifted females had equal intellectual abilities, differences did exist in the way each applied and utilized their intellect. Given that there was no proof of intellectual differences, these findings would logically mean that genius should be treated equally and, henceforth, each gender should be provided with equal educational and professional opportunities. If there were no differences, then why were more men entering higher levels of education, acquiring higher status professions, and ultimately becoming the

“geniuses” of society? The answer to this perplexing question is perhaps found within the social context that subdued females’ intellectual abilities.

Although women were intellectually gifted enough to enter college and gain degrees, larger institutions denied women opportunities to extend and apply their talent. Medical schools limited admissions to women and many hospitals refused to appoint female physicians (Simon & Danziger, 1991). Kopald’s belief that social institutions and social norms unreasonably and unfairly suppressed the female intellect was becoming more and more plausible, even amidst the latest evidence that demonstrated males and females were intellectually equal.

The “Gifted Female”

A few years later, Leta Hollingworth (1929) expanded on Terman’s (1925) findings by further reinforcing the fact that intelligence was equally distributed between the genders. In 1927, she was the first to use “gifted female” as the term to describe females with an IQ of 130 or greater. It was an empowering moment because females had never garnered attention as being intellectually capable or talented, let alone superior, as an IQ of 130 or more would suggest. The term “gifted female” separated females from males in a way that recognized the gifted female as a separate entity with traits and features different from gifted males. In many ways, the term provided a voice to the many ignored gifted women who had been historically denied intellectual equality.

While the term and category “gifted female” recognized gifted females’ similar academic potential to males, it also recognized and highlighted their social differences.

In Hollingworth’s (1929) work titled *Gifted Children: Their nature and nurture*, she dedicated a specific section to gifted females that addressed the education and social function of gifted females. Within this section, she recognized the social differences that

separated the gifted female from the gifted male and non-gifted females. Hollingworth emphasized that the gifted female be given the same educational advantages that men had been given. Rather importantly, she also mentioned the "woman question," which asked how an intelligent woman could successfully have a career and fulfill her "womanly" duties. Essentially, she questioned how the gifted female could succeed amidst burdensome family-based expectations that prevented her from succeeding professionally. In this way, Hollingworth echoed Kopald's (1924) original argument, which blamed culture for oppressing intelligent women. She accused society of ultimately depriving the gifted female of conditions for reaching her full potential. However, there was still an assumption that women were to fulfill "womanly" duties whether they were intellectually gifted or not.

Unlike her earlier work, Hollingworth (1929) advocated to ensure gifted females had access to all types of educational and career opportunities. Furthermore, Hollingworth touched upon the notion of permitting the use of birth control and creating day-care facilities to supervise children so women could more easily pursue careers and achieve. This was significant because Hollingworth had recognized that while gifted women required help within the classroom, they also needed support outside the classroom, in the larger social sphere. In order to let the gifted female flourish intellectually and socially, society would have to change. It was clear at this point that the problems facing gifted females did not exist solely within classrooms. Modifications could be made within classrooms, but it was the existing social climate that was preventing her from succeeding. Although Terman (1925) had demonstrated the equal intelligence of both genders, great doubt regarding this fact still lingered among many.

Setbacks

In 1932, Frederick Lund, a researcher of human emotions and belief, studied the educational mastery of female and male students. Despite previous studies that had shown that females demonstrated equal and, at times, superior mastery in all school subjects, Lund (1932) expressed trepidations about such conclusions. For his research, he collected college test scores of freshman males and females' mathematics tests, intelligence tests, high-school grades, college grades, and language tests over a four-year period. Over the four-year period the participants attended high school, female scores and grades were higher than male; however, female grades dropped significantly in the last two years. Lund's findings supported the presence of female intelligence, but he interpreted his findings as implying a form of intellectual inferiority amongst females due to their scores dropping. Lund theorized the reasons for increased male and decreased female grades and scores by concluding that females did not, in fact, possess intellectual talent; instead, he suggested their initial higher test scores were a reflection of their ability to memorize, rather than to actually learn. He believed that females memorized knowledge when it was needed, but quickly discarded it when it was no longer needed. Lund claimed that males possessed a stronger long-term memory, allowing them to retain information for longer periods, thus explaining why females' marks dropped significantly in the third and fourth years while men's marks remained constant throughout all years.

It is important to note that Lund (1932) provided no scientific evidence to support this assertion. Lund also attributed females' high scores to more lenient treatment compared to males and stated that the curriculum was more verbal and less logical, in an effort to explain why females excelled within school. Finally, Lund stated that females' marks dropped due to their pre-occupation with social activities, marriage, and

childbearing, which was similar to earlier assertions made by Kopald (1924) and Hollingworth (1929), who also believed that females' achievement was impaired due to social expectations. However, the main difference between Lund's beliefs about females was that Kopald and Hollingworth blamed society for raising women to be social beings while Lund implied that women were social beings by nature. Despite his findings that supported the presence of high female intellect, Lund promoted the idea that that males were the better candidates for careers and long-term success, even though their grades were lower. Although Lund concluded that females were not as intelligent as males, he provided valid proof of women's intellectual abilities, while simultaneously arguing against the validity and the reality of his own results. Considering that Lund's study was conducted after Terman's (1925) seminal research, his research represented a substantial set back and a return to traditional thought which assumed the intellectual inferiority of women compared to men.

Contrary to Lund's (1932) denigration of female intelligence, John E. Bentley, a scholar whose research focused on gifted children, drew attention back to gifted females by stating that gifted females had not received proper attention from either the classroom or society. Bentley (1937) compared gifted boys and gifted girls in terms of physical traits, general health, nervous disorders, play interests, intellectual traits, reading interests, personality traits, and vocational interests. Bentley found that females tended to be better and stronger with linguistics and suggested that girls' strengths with linguistics were reflective of their fondness for reading. Of particular importance, Bentley discussed the play interests of gifted girls, noting that gifted girls were drawn to more competitive games, which stimulated their intellect compared to traditional doll and tea sets. This was similar to Coy's (1918) profile of gifted female, M. F, who also showed more interest in

playing with boys and “boy” games. Interestingly, Bentley found that gifted females showed fewer masculine traits after the age of twelve. This particular finding is suggestive of social forces that influenced females to drift away from education in pursuit of more social goals such as dating and marriage.

While Lund showed a lack of interest in educational reforms to ensure females the opportunity to succeed, Bentley followed in the footsteps of Kopald (1924) and Hollingworth (1914, 1929) by suggesting the use of appropriate role models when teaching and working with gifted females. To facilitate this, he presented a list of “America’s Twelve Great Women Leaders,” including a list of such notables as Mary Baker Eddy, Jane Addams, and Harriet Beecher Stowe. By introducing the concept of great women role models as a way to guide and help gifted females make decisions and achieve, Bentley contributed to the small, but growing list of strategies for differential education for gifted females.

In 1942, Leta Hollingworth presented the chapter “Special Problems of the Gifted Girl,” in her book, *Children above 180 IQ*. Compared to her earlier works in which she categorized and identified the gifted female as being unique and exceptional, she conversely discussed the problems that gifted girls faced, placing particular emphasis on the potentially problematic behaviours displayed by gifted females. She presented a brief profile of a gifted female whom she had worked with and described the 11 year old as a “tom boy” who preferred outdoor games and expressed aggressive behaviour in the schoolyard, which she inferred as highly uncommon among non-gifted females. Immediately, the gifted female was considered problematic in that she was behaving more like a boy. When the girl was encouraged to play with baby dolls, she refused saying that baby dolls were “boring” and that the dolls were not of “real size.” The girl’s

mother expressed great distress and frustration with her daughter, especially during times when she encouraged the child to play with or behave according to the norms for the female gender. Hollingworth's (1942) portrait of the gifted female is rather negative, doubtful, and disapproving of the gifted female, as it focuses solely on problems, those being the social and behavioural differences of the gifted female that separated her from non-gifted females. Hollingworth stated: "The intelligent girl begins very early to perceive that she is, so to speak, of the wrong sex," (p. 176) thus reflecting a negative attitude toward the nature of the gifted female – quite the opposite to her previous attitude. Why would it be a problem that this girl behaved like a boy? Contrasted with her own (1929) and Bentley's (1937) works, where the gifted female was glorified and recognized for her unique traits, Hollingworth presented the gifted female as having an awkward manner. Without offering ideas for educational remediation to assist gifted females within or outside the classroom, Hollingworth seemed to suggest that intelligence was only socially acceptable for gifted men and that it would be a struggle for the gifted female because she would not be accepted for her uniqueness and her focus seemed to be strictly on the assumed social-behavioural implications of gifted females, rather than their intellectual or vocational potential. Hollingworth's extensive focus on the socio-behavioural implications would continue to be seen in future research articles.

By 1947, World War II had ended and men were re-occupying jobs they had left to enlist in the military, whereas women were forced back into and re-occupied the domestic realm. At this time, Terman worked with researcher Melita Oden (1947) to extend his 1929 research with the original gifted participants. Terman and Oden revealed more information about the vocational choices of participants, particularly the differences between how gifted males and females pursued careers. Approximately 48% of the gifted

females were employed full-time, which meant that over half of the gifted females in his earliest study were not in the workforce. The remaining 42% were categorized as housewives who were described as being married women who had no paid employment outside the home. The main types of employment that gifted women found were clerical, performing secretarial tasks and working in offices, or elementary school teaching.

Comparatively, a significant number of gifted men were employed in more professional positions compared to gifted women. This number was so high that the researchers created five distinct job categories. Group 1 consisted of lawyers, engineers, doctors, and architects; Group 2 consisted of accountants, business owners, army officials, and economists; Group 3 consisted of salesmen, and statistical clerks; Group 4 included policeman, retailers, truck drivers, and machine operators; and Group 5 included unskilled workers (Terman & Oden, 1947). Of all five groups, most gifted men occupied occupations within Group 1. Terman and Oden also collected information about vocational interests, however, they were only able to assess the test scores of gifted males because very few gifted females completed and submitted the assessment. As a result, there was no information about gifted females' vocational interests, and this was interpreted as a lack of interest in vocations among gifted women. Perhaps though, there was so much pressure on women to fulfill household duties and so few opportunities for vocations that there was little room or motivation for women to develop interests in careers.

Thirty-five years after initial research on his gifted group, in 1959, Terman and Oden published another follow-up study. In the follow-up, they acquired more information about gifted women and their preferences for education and employment.

The average age of both male and female participants was 30. One particular aspect of

this follow-up was titled "The Matter of Schooling," and it examined several gifted women who were college graduates (Terman & Oden, 1959, p. 64). Their findings revealed some considerably favourable statistics about gifted women's involvement in higher levels of education. It was reported that 67% of gifted women who were attending graduate school had successfully graduated whereas 70% of gifted men had graduated. Although not all of the gifted women who participated in graduate studies graduated, these data demonstrated a positive change in women's educational interests. This particular finding was reflective of the times because it demonstrated that gifted women could pursue an education, even at high levels, but the extent to which she could apply her knowledge toward a career still seemed to be less clear.

According to Terman and Oden (1959), one-half of gifted women in the 1955 reports were housewives and the 42% who were employed full-time were classified into three occupational categories: a) professional; b) business; and c) miscellaneous. Within the professional category, most women were schoolteachers, counselors or social workers. In the business category, most women were employed as secretaries, and fewer were employed in executive and managerial positions. In this group of gifted women, it should be noted that only one gifted female was working as a high-level scientist. In addition, Terman and Oden also constructed individual profiles of these women. The most intelligent female had an IQ of 192, yet she was married by the age of 22, and became the mother of eight children and remained at home, raising her children. Another participant happened to marry a gifted male in the study and while the male attended law school, the female worked as a private secretary. Terman's two profiles of these gifted women provided an indication of the ways in which society appeared to influence the ways they applied their intellectual talents. Although gifted women had shown

intellectual strengths, they showed more active social roles resulting in lifestyles different from their male counterparts.

The Terman and Oden (1959) study also included information about the incomes of gifted men and women. Gifted men were earning incomes in high brackets of \$25,000 and more. In contrast, the maximum incomes of gifted women were \$10,000 with averages of \$18,000 for men and \$3,000 for women (Terman & Oden, 1959). The stark difference between income levels reflected the social inequality between gifted men and gifted women. Most importantly, the unequal pay also showed a preference for male achievement and success and rewarded male achievement more than female achievement.

Terman's (1925) and Terman and Oden's (1947, 1959) body of research contributed greatly to the field of giftedness and gifted education. More importantly, it demonstrated proof of gender inequality thus reinforcing the notion that "gifted female" should be a separate category. Terman and Oden constructed a prototypical situation in which gifted men and women of similar intellectual abilities could be compared to one another. The gifted male achieved more and used his abilities in more socially rewarded ways. Terman and Oden can also be credited for exposing the gifted female in a more positive and equal light. Throughout his research, there were instances where information and access to the insights about the gifted female were unavailable (e.g., vocational interests), yet he constantly recognized them as equal participants, possessing equal abilities to males. However, the obvious social expectations related to gender role that he encountered showed more about the social norms and life of the gifted female. It can be argued that the social inequalities and problems Terman and Oden chose to include in his data collection and analyses provided the foundation for all future gifted female research.

Research was directed by paying attention to economic problems due to their social role and position.

Phase I was a critical and essential phase in the gifted female literature. The historical absence of women in intellectual contexts reinforced the assumption that they were simply not as intelligent as men. This assumption was challenged as researchers began to determine the intellectual abilities of females. Most importantly, the biggest challenge and accomplishment that occurred within this phase was recognizing and critically questioning the lack of eminent intelligent females. As a result, women were proven to be capable and talented persons. However, during this pursuit of proving equal female intellectual ability, new questions arose and lingered. Vividly, Sylvia Kopald's (1924) initial question, "Where have all the female geniuses gone?" remained unanswered. If females were of equal ability, why were they absent? This haunting question would have a resounding impact on Phase II of gifted female literature.

Phase II: Problems of the Gifted Female (1960-1971)

During Phase I, the absence of gifted women was addressed by Coy (1918), Hollingworth (1914, 1929, 1942), and Kopald (1924). Terman numerically substantiated much of the pre-existing qualitative work by presenting quantitative evidence which allowed for the "gifted female" to evolve into its own gender-specific category, defined and characterized by certain traits. Rather significantly, the lingering question of whether or not females were truly intellectually capable seemed to have been answered. One could assume that such findings would demonstrate a plethora of opportunity for the gifted female, who had not been acknowledged as gifted up to this point. However, as more research was completed, it became apparent that there were problems associated with being a female who was identified as gifted.

A dominant characteristic in Phase II literature is the assumption that gifted females were inevitably going to encounter problems due to their social role and position.

There was an automatic assumption made consistently throughout the research that being a gifted female was problematic, yet specific research to support this assertion was lacking. As a result, researchers turned to identifying more specific problems (e.g., lack of career progress).

A second characteristic common in Phase II was the identification of a need to support gifted females. This characteristic built on findings from Phase I, when it was first suggested that educational accommodations for gifted females were required (Bentley, 1937). Unlike the earlier suggestion by Bentley to provide improved learning materials as a means for educating gifted females, Phase II researchers seemed to focus more on socio-emotional supports for the gifted females as a means to help them pursue their aspirations and resist larger social forces that might hinder their efforts.

A third characteristic of the Phase II literature is the view that gifted females have unique potential that separates them from non-gifted females. This assumption could first be found in the latter part of Phase I, after Terman (1925) had proven their equal intellectual ability but identified their social differences from males. Bentley (1937) discussed ways in which the needs of gifted women could be met, primarily through educational supports. It is important to note that this position had a major influence on building the belief that gifted females held valuable potential that was worth special treatment and support. The end of Phase II would mark the advent of the first overt belief that society, at large, was to blame for the inability of gifted females to achieve. Prior to this, some scholars briefly noted that society might be partially responsible for the underachievement of gifted females but by the end of Phase II, a shift toward looking at the larger external systemic causes for the lack of achievement among gifted females was underway.

Self-actualization and the Gifted Female

Prior to 1960, there was little knowledge or research about the explicit struggles that gifted females were encountering. Elizabeth Drews (1965), a researcher of classroom participation and classroom interaction, prepared the first study that looked exclusively at the counseling of gifted females. She focused specifically on helping gifted females attain self-actualization, which she defined as being emotionally mature, having increased motivation to learn, and being independent. She discussed ways to change the treatment of gifted females within classrooms, as this treatment was perceived by researchers to be the cause of females being relegated to simple domestic tasks. Instead of merely accepting the suggested biological rhetoric about why females should remain within households, Drews suggested a solution. She based her approach on Maslow's Hierarchy of Needs (Maslow, 1943), whereby self-actualization was the highest level of personal achievement amongst humanity. This application of Maslow's Hierarchy of Needs was unique and unlike any research before. Drews discussed the lack of proper role models for gifted females and built on the earlier ideas of Kopald (1924) and Bentley (1937), by emphasizing the need to help females within the educational realm. However, she went beyond the educational realm of the time to suggest that socio-emotional development and adjustment of the gifted female outside of school was equally important.

Drews (1965) specifically explained why gifted females were candidates for Maslowian-based counselling, arguing that these women possessed unique potential not shared by males or average females. Drews referred to Aldous Huxley's (1961) stance on educational differentiation and his claim that it was unfair to place all students in one classroom and subject them to the same education. As a result, some students would suffer within this environment, particularly those who are gifted. Drews based her strong

advocacy for gifted female differentiation on her own experiences plus data collected about gifted females. She explained that gifted females wanted different books, class-structures, and different treatment. Essentially, she truly believed that gifted females wanted to be different and thus would be willing recipients of an exclusive and differentiated learning program.

Based on other studies Drews (1965) conducted, she introduced new curricular materials and strategies that would benefit gifted females. First, she introduced new textbook materials that presented contemporary issues and heroic figures to give females role models to emulate. Her second curricular effort suggested gifted females be shown a set of films that featured both eminent men and women who expressed equal achievement interests. Within these films, eminent men and women were contrasted with less-motivated, less-intelligent figures. The third curricular strategy that she recommended was that when working with gifted females, teachers should use open discussions to allow gifted females to express their thoughts without restrictions.

In this way, Drews (1965) made the very first attempt to provide specific teaching strategies to benefit gifted females. Norma J. Groth followed a similar approach to guiding gifted females by using Maslow's Hierarchy of Needs (Maslow, 1943) to justify educational and counseling differentiation for gifted females. Groth (1969) specialized in both gifted females and gifted males, and she also studied the mothers of gifted females. In her study, Groth assessed the wishes of gifted males and females between the ages of 10-70 and categorized them according to Maslowian needs: physiological, safety, love and belonging, esteem, and self-actualization. The results demonstrated that gifted females expressed a greater need for love and belongingness compared to gifted males and a greater desire for self-actualization. The most significant finding revealed that

females between the ages of 14-40 prioritized their need for love and belongingness and this prioritization overshadowed career and intellectual development.

Groth (1969) explained that social expectations were the cause for females' detachment from career and intellectual interests by encouraging women to marry and bear children. Groth concluded that women learned to appear less intelligent as a social manner and, as a result, neglected their own potential. Groth's conclusion regarding the negative influence of social norms on the intellectual and professional development of gifted females was not the first time research had suggested that society and social expectations were to blame for the intellectual oppression of women. Slowly, more attention was being directed to the problems gifted women were encountering, but again, there was little explicit knowledge about these problems.

Career Aspirations

During Phase II, slowly, the interest in gifted females' struggles to achieve in the classroom also shifted toward a focus on female struggles to achieve within the professional realm. Donivan Watley, a professor of counselling psychology, sought to evaluate the factors that influenced the differential progress of gifted students' careers. This was one of the first studies to move beyond gifted females' struggles within the classroom to struggles in pursuing a career. The participants in Watley's (1969) study were National Merit Scholars and their career choices were evaluated 7-8 years after they entered college. Of the 361 females who were contacted, 27 had no bachelor's degree; 90 had a bachelor's degree; and 244 had completed some graduate work. Comparatively, 125 men had bachelor's degrees, 708 had a master's degree, and 97 had a doctorate. No gifted women had received a doctorate degree, whereas males had achieved this goal. Clearly, the results revealed differences between gender and the level of degree that was

attained. Watley also recorded the aspiration levels of gifted males and females throughout 1957, 1961, and 1964, and interestingly, no women aspired to or had attained a doctoral or professional degree, whereas all of the men who had aspired to gain a doctorate degree had received the degree. Watley demonstrated that clear differences existed for aspirations and career motivations between gifted males and females. He concluded that women without bachelor's degrees were not strongly career-oriented noting that one-half of this group had expressed no career interests. Women who had received a bachelor's degree were satisfied with their degree, but also demonstrated a strong interest in motherhood.

Watley's (1969) research showed significant differential career progress among equally able and gifted participants. He drew attention to how social norms likely influenced women's professional achievement as opposed to the biological reasons that were historically and commonly believed to deny women success. However, these social norms and external influences were still not understood. In an effort to shift closer to understanding these external influences, Joan Joesting and Robert Joesting, researchers of creative females, published the article, "Future Problems of the Gifted Female," documenting the past research about gifted females and their specific problems. Joesting and Joesting's (1970) work focused on the larger systemic societal issues that were believed to cause problems for the gifted female. The voice of Leta Stetter Hollingworth (1942) was echoed in this work as Joesting and Joesting stated that the problem of the gifted female was illustrated in how she was received and socially-accepted in the public eye, rather than who the gifted female was as a person. They suggested a set of guidelines for counselling gifted females. These guidelines drew on Drews' (1965) and Groth's (1969) emphases on self-actualization but they also employed a more individual-based and

career-centered basis for their line of counselling than does the Maslowian theory of self-actualization. The suggestions were as follows: 1) Listen to her; 2) Help her see herself as she is; 3) Encourage her to explore; 4) Help her identify occupations that appeal to her; 5) Help her make a decision; 6) Help her plan for her vocation; 7) Provide information needed for placement resources; and 8) Provide her information needed for development on the job.

As the focus of literature zeroed in on gifted females and problems associated with achievement, Grace Rubin-Rabson, a researcher of women and musical talent, built on this analysis in her discussion the issue of achievement among gifted women. Rubin-Rabson (1971) presented further data that highlighted how men were achieving more bachelors, masters, and doctorate degrees than women. Strangely, she agreed with Frederick Lund's (1932) assumptions that these women's lack of achievement was due to their alleged pre-occupation with social activities. She reinforced the notion that only a few women could be gifted professionals and furthermore, be gifted enough to move to higher career levels in the professional world. She even suggested that some gifted women would never be able to reach high academic levels due to their social roles as housewife and mother. Elaborating on the belief that gifted females were not achieving due to their social roles, Rubin-Rabson went further to state that gifted women seemed to be perfectly satisfied with taking on these social roles – particularly the gifted women who were “beautiful and specially talented” (p. 206). By stating this, Rubin-Rabson implied that the more physically attractive a female was, the less likely it was that she would be academically successful. Instead of exploring reasons why gifted women would fail to reach higher levels of achievement, she sided with the existing popular

belief that women would simply never be capable of reaching the high achievement that was more common among men.

The literature in Phase II played a pivotal role in highlighting two key aspects that would arguably frame the way in which scholars would approach and understand gifted females. First, it articulated the fact that gifted females encountered problems when trying to achieve success within the professional world. Second, the main way to solve these problems was to suggest educational and counselling changes and modifications. This trend of identifying gifted females as encountering problems and then providing a solution to eliminate such problems would be a key approach to researching and writing about gifted females.

Phase III: External Barriers and the Homogenization of the Traits and Struggles of Gifted Females (1971-1979)

In many ways, the Phase III literature contained several characteristics that were found in Phases I and II. First, there was still the assumption that gifted females experienced problems due to their social role as women. A common assumption that was present in Phase I and Phase II was the belief that gifted females possessed a special unique potential that could be salvaged by means of educational reform, resources, and counselling strategies.

Slowly, more information and knowledge was being revealed about the problems experienced by being gifted and being a female, yet the specificities of these problems remained vague. Unlike Phase I and II, where there was very little knowledge about the problems of gifted females, Phase III attempted to address not only these problems but furthermore, the root of these problems – social oppression. As a result, Phase III focused strongly on the external social barriers (e.g., marriage; gender stereotypes) that gifted

females encountered when trying to succeed. Phase III was more open to identifying the social factors that might be to blame in gifted females' struggle to achieve and there was less hesitance in identifying and highlighting these factors compared to Phase I and Phase II. Because the problems surrounding gifted females circled around achievement in the classroom and professional realm, this would provide a context for exploring and examining specifically what these struggles were and furthermore what allowed these struggles to occur.

A new characteristic that appeared during Phase III was the acknowledgement of creativity among females. To this point, Phase I and Phase II had only recognized academic intelligence (measured by intelligence quotient and academic performance). Thus the types of gifted females included in the samples were limited and only demonstrated a certain type of giftedness. The addition of creativity broadened the ways in which gifted females could be identified and included in the category.

Another new characteristic that was present during Phase III was the approach toward researching and organizing information about gifted females. There was a tendency to gather data about large samples of gifted females and then categorize gifted females within the gender-specific category, according to their personality traits, career interests, and goals. Although this approach was present in Phase I and Phase II, specifically with Terman's (1925) approach to gathering data on gifted females, and in Drews' (1965) approach to categorizing gifted females, it seemed to have a stronger influence on the way gifted female researchers chose to study gifted females in Phase III.

Building on Phase I and Phase II's attempts to support gifted females amidst social obstacles, Phase III demonstrated a notable advancement in research pertaining to educational support for gifted females. However, the supports for gifted females tended

to shift further away from the individual-based approaches found in Phase II, and instead, focused on education and supporting gifted females, as a group, inside the classroom. There was the assumption that the education system could ultimately be the ideal support for gifted females and that the classroom could be a major solution to all the obstacles that gifted females encountered. Resulting from this assumption was the belief that curricular modifications, counselling, and career development were believed to be the ideal support and equally effective for gifted females. Similar to Phase II, Phase III suggestions were equally adamant about supporting gifted females. What was most problematic about the efforts to modify the educational environment for gifted females' was the assumption that gifted females all possessed the same needs. This assumption was very much present in all three phases.

Social Influences

Watley and researcher Rosalyn Kaplan presented an alternative perspective on gifted women and their struggle to achieve – a perspective that considered the external pressures that caused gifted women to achieve less than men. Watley and Kaplan (1971) stated that the main reason for women's inability to excel were due to the conflict between marriage and career. Although marriage was briefly suspected as being a potential obstacle to gifted women and their achievements (Hollingworth, 1929; Kopald, 1924), they explicitly stated that women, gifted and non-gifted, had been taught to place their priority on full-time marriage and motherhood. As a result, they had been implicitly taught to deny their own interests and career pursuits. Due to this oppressive background, women set limits on themselves and this resulted in their lack of achievement. Rather importantly, Watley and Kaplan reinforced the notion that the main issue was the types of messages that were being transmitted to women about their potential, which would add to

the slowly accumulating information about external barriers to gifted women's success. In response to this growing concern, Watley and Kaplan administered a follow-up questionnaire to 1965 Merit Scholars study, asking a variety of questions about females' plans for family life (1971). They found that 85% of their female participants reported a planned career; interestingly, this was a major change since Terman and Oden's (1947) study wherein most of the women did not pursue careers. However, the main difference between the two studies is that Terman and Oden's study took place in the midst of the mid-forties and reported female's actual behaviours, whereas Watley and Kaplan's study examined women who were in their mid-twenties and in amidst the process of pursuing careers, but not actually fulfilling their careers.

It can be argued at this point in gifted female literature, the problem with the gifted female was *not* the gifted females' access to education, but instead, the external social barriers that influenced gifted women's choices. There was substantial evidence that gifted women had demonstrated their potential within the classroom, and no longer was any proof needed to demonstrate the equal distribution of intelligence among the genders that Terman (1929) had measured and proven. However, the transitional troubles of moving from an educational setting to a progressive career seemed to remain the presiding issue for gifted females. It was during this transition that pressures to enter marriage and bear children seemed to be heightened, and this would cause gifted females to change their career plans.

Model of the Creative Woman (Helson, 1971) and the Marland Report (1972)

Ravenna Helson, who specialized in social psychology and the development of women, expressed a strong interest in the creative potential of women. Helson (1971) created a representational Model of the Creative Woman in response to the inclusion of

creativity as a type of giftedness. Her schema presented the gifted female as surrounded by numerous unconscious and conscious functions. In the centre, there was a maiden who represented the gifted female, receptive to many ideas and possessing talents. The Owl and the Dwarf symbolized conscious functions. The Owl represented the reflective and intuitive functions of the gifted female while the Dwarf represented the stubbornness and craftiness. The Serpent Lady, who represented narcissistic and manipulative traits, symbolized less conscious functions. Also at the center was the Bear, who represented maternal protectiveness. Helson's own creativity was the first attempt to illustrate the creatively gifted female as being composed of many different traits and personalities. It was also a way to begin to look seriously at creative females that would influence future research and in many ways it initiated and recognized a whole other aspect of gifted females.

In 1972, the United States Commissioner of Education published a document known as the Marland Report. Written and published by the American government, it provided information about giftedness in order to better educate and inform teachers. The Marland Report (United States Commissioner of Education, 1972) was the first document that officially addressed giftedness and creativity as an exceptionality that affected American children and adults. Because research had revealed that gifted children, in general, were performing much lower than their potential, the Marland Report attempted to re-inform and re-educate people about giftedness. As a result, the Report provided a new definition of giftedness – a definition that was broader and more embracing of the different facets of giftedness. Since Terman's (1925) first study of gifted children, the definition of giftedness was known, but vague in that many assumed that terms such as genius were synonymous with giftedness. There was a pertinent need for a newer

definition of the exceptionality. In the Marland Report, the definition of giftedness stated that gifted individuals would demonstrate high performance in the following six areas: general intellectual ability (IQ), specific academic aptitude; creative or productive thinking, leadership ability, visual or performing arts, and psychomotor activity. The Marland Report was extremely significant within the world of education because this definition changed the way giftedness was viewed. It was no longer a word to describe strictly intellectual ability but, instead, a term that referred to a wider spectrum of talents and gifts. The expansion of the giftedness definition had a positive effect on gifted female research because now females could be studied for their creative talents and artistic abilities, compared to the first part of the century when only intellectually gifted females were recognized.

Homogenizing the Gifted Female

The influence of the Marland Report's (United States Commissioner of Education, 1972) inclusion of creativity as a type of giftedness was evident in the literature of the 1970s, as more attention was placed on creativity and on creative women. Although Watley and Kaplan (1971) made a rigorous effort to identify explicit barriers that affected gifted women's achievement, Helson (1971) went in a different direction. Provided with the strong influence of the newly published Marland Report and the inclusion of creativity in the national definition of giftedness, Helson gathered information and data about creative female mathematicians. In doing so, she carefully examined the following different traits: intelligence, personality characteristics, interests, cognitive and aesthetic measures, mathematical styles, personal history, and professional achievement. Her organization of her study would have a profound influence on future research, as it was

one of the first studies that explicitly drew such categories to understand gifted females according to their traits and find commonalities among them.

As beneficial as this approach was because it was so informative, it unfortunately began to homogenize the gifted female. The gifted female suddenly became a category that was defined by certain traits but ignored the unique traits that differentiate gifted females from one another. The traits and characteristics that Helson (1971) outlined were compared with those of other women mathematicians and male mathematicians. The most common characteristics that were found amongst the creative female mathematicians were that they were more rebellious, independent, and narcissistic, and resisted restraints. Helson concluded that gifted female mathematicians were no different from gifted male mathematicians. Such a finding was valuable within the gifted female literature as it demonstrated intellectual, creative, and personality equality between the genders.

Helson's (1971) use of categories as a means of understanding gifted female mathematicians was the first time in gifted female literature that gifted females' traits were categorized. This approach exposed information about gifted creative female mathematicians. Because the gifted female mathematician was unknown and uncommon, there was a natural need to find similarities among all female mathematicians. As useful and informative as this approach was, it implied that the gifted female was something that could be further organized into categories. Within these categories, the gifted female would be a subject of comparison with other gifted females. Helson can be credited with drawing attention to creative talent amongst gifted females, which had only started since the Marland Report (United States Commissioner of Education, 1972). Much was known

about the gifted female defined by intelligence measures, but little was known about the creative gifted female.

The Gifted Female and the Non-Linear Life Path

Similar to Kopald (1924), who questioned why there weren't more female geniuses, Groth (1975) questioned why women professors fell behind men in creativity and productivity. After considering the multitude of issues related to appropriate gender roles, and the various external pressures placed on women, Groth concluded that society externally supported and rewarded male achievement. As a result, gifted females struggled to follow a linear life path – a path that was already established for males. Yet this path was not so easy for females, as they were expected to be wives and mothers. Her conclusion supported the previous conclusions of Watley and Kaplan (1971) who both drew attention to the potential negative effects of external social influence. Gifted women, instead, were not rewarded by society, but found internal rewards through personal freedom, autonomy and fulfillment. Groth asserted that men and women had different paths of life and, therefore, women and men excelled differently and grew into adulthood differently. She further stated that men were born into a world where their life path was already established and led to success. Women did not have a similar path to professional success, but rather a predestined path to marriage and motherhood. Gifted women, however, were more likely to experience more conflict when choosing between life paths simply because they possessed more potential to achieve and could, therefore, follow the men's path to achievement and success.

Gender Role Stereotypes

As previously mentioned, creativity had been recently introduced to the new definition of giftedness by Helson (1971) and the Marland Report (United States

Commissioner of Education, 1972). Creativity was further divided into two types: product creativity and process creativity. Product creativity resulted in a new, innovative product, such as a musical composition while process creativity resulted in a life path product, such as a career. For either type of creativity, it was assumed that the person had to be bright and intelligent (Groth, 1976). At this point in Phase III, external barriers to being successful were increasingly addressed in gifted female literature. Issues such as marriage and motherhood were seen as being a prominent barrier to gifted women's achievement. Groth added to these growing data by considering the role of gender-role stereotypes in gifted women's lives. To this point, gender-role stereotypes had never been considered as having a potential effect on gifted women. Instead, more tangible and visible barriers, such as marriage and motherhood were the widely acknowledged barriers to women. In an effort to gather more knowledge about these barriers, Groth conducted a study on gender-role stereotypes to explore college students' views of gender roles and creativity. She presented 213 college student participants with several gender role stereotype statements to which they were to indicate whether each was true or false. Examples of the gender role stereotypes included, "Girls are more social than boys," and "Boys are more analytic than girls," (Groth, 1976, p. 330). Results demonstrated that there were significant differences in how males and females perceived gender role differences. For example, more men than women believed that girls were more social than boys. Rather positively, though, females continued to view themselves as equal or superior to males. In another example, both boys and girls believed that girls didn't have lower self-esteem than boys. Although Groth concluded that female creativity was suppressed by gender-role stereotypes, she also found that gifted females developed a resiliency to such stereotypes because they still viewed themselves as equal and/or

superior to males. Such findings encouraged others to look more closely at the sex role beliefs and stereotypes that were transmitted to gifted females. Furthermore, the findings encouraged a strong desire to fully eradicate gender-role stereotypes for fear that marriage and motherhood were destroying the future potential of gifted females. However, because females in her study had also demonstrated a resistance to the stereotypes, this also potentially demonstrated a lack of effect that stereotypes could have on females. There was certainly confusion regarding the effect stereotypes had on the lives of gifted females.

Educational Reform as a Solution: Acceleration and Independent Studies

Marriage, motherhood, and gender-role stereotyping were perceived to have a strong impact on gifted females' achievement. As knowledge about the external problems facing gifted females grew, the approach to eradicating these external problems became more aggressive. Amidst this need to preserve and protect gifted females from these external barriers, a focus on gifted females' potential developed. There was a curiosity and an awakening about recognizing the additional talents that had been hidden for so long. As a result of this new focus, radical approaches to educational reform started to emerge. Just as Drews (1965) and Groth (1969) had introduced individualized counselling for gifted females, the educational goals for gifted females became more specific, but held the same intentions to preserve and protect the gifted female from becoming victim to external barriers.

Although Drews (1965) and Groth (1969) had provided more personal counselling skills for those who work with gifted females, it must be noted that these counselling skills were created before there was more explicit knowledge about the external problems gifted women faced. By the mid-1970s, marriage, motherhood, and gender-role

stereotypes were perceived to be the main obstacles negatively affecting gifted females. Provided with the insight of this knowledge, Lynne Fox, whose past research focused on mathematically-talented females, introduced different program plans for gifted females that included accelerated achievement, an example being early-admission to college programs. Fox's (1977) suggestions for accelerated learning for gifted females evolved from the assumption that marriage, motherhood, and gender role stereotypes would hinder gifted females' achievement. As a result, accelerated learning programs could protect and fast-forward gifted females' education to by-pass the social influences that were extremely influential at critical ages. Fox expected that early admission was more effective for females at the elementary level while acceleration was more difficult for females at higher grades due to social implications or traditional school norms that would make the gifted female stand out in peer groups. However, research was still needed in order to prove that assumption true.

The other strategies that Fox (1977) suggested were non-accelerative strategies such as self-paced independent studies, enriched classes, and mentorship programs. Accelerated programs were far more favoured particularly for the gifted female because it was believed they gave her the power to move ahead and to recognize her abilities while doing so. It was feared that these talents might be lost in an enriched course because it would fail to provide her with the feeling of achievement that acceleration could provide. Most importantly, Fox suggested five areas of concern for gifted males and females. The first concern was the potential negative effects of gender-role stereotypes. A second area of concern was homogeneous grouping and the problems that could arise when grouping gifted children with one another, according to their learning interests and similarities. Fox believed that it was detrimental to gifted children, specifically gifted females, if they

were grouped according to IQ score and instead, believed it was more important to create heterogeneous groups whereby each student's personal interests could be accounted for and each child would have the space to express and develop his/her talents. When learning in an IQ homogenous environment, students' uniqueness and personality might be lost in the IQ similarities. The third area of concern was the area of accelerated learning and appropriate content. There was concern about ensuring that there was early identification for all gifted students, and more importantly, that they were exposed to learning curricula and materials that were appropriate for their level. The fourth area of concern emphasized the need to properly identify students so they could be exposed to proper learning material that would foster and nurture their learning. The fifth area of concern was with providing proper counselling for gifted students.

What was significant about Fox's areas of concern for giftedness in the late 1970s was that she included both genders when discussing these concerns and making suggestions for educational reform. Prior to her work, gifted females were treated as a separate population, deserving of treatment and attention separate from gifted males. Fox challenged this perspective by emphasizing that the social differences that existed between gifted males and females were simply not enough to provide individual gender-specific counselling or educational suggestions.

While literature from Phase II emphasized that self-actualization was the solution to the external problems that gifted females were encountering, during Phase III the gifted female became a vehicle for obtaining success via an outlet such as a career. Reasons for the shift from self-actualization to high-paying careers as the primary goal for the gifted female was probably due to the fact that a career would provide professional equality and potentially equate to gifted women being treated as equal persons to men.

Career Development

As a response to the external problems that were identified throughout Phase III, three co-researchers Rodenstein, Pflieger and Colangelo (1977) discussed the importance of career development as a major goal for gifted females and listed the conflicts that females specifically experienced due to their giftedness. This was the first time that career development had been expressed as a specific goal for gifted females within an educational setting. Groth (1969, 1975) and Fox (1977) had expressed the importance for creating educational modifications to ensure that gifted females could excel amidst external social influences, but it seemed at this point that a career was the main strategy to protect and help gifted females live their potential. Rodenstein, Pflieger, and Colangelo identified five contradictions that specifically affected gifted females. First, they stated that a gifted student was expected to develop his or her own talent, yet a woman was expected to be nurturing and giving. Second, a gifted student was expected to be exploratory and active, yet a woman was expected to be submissive and passive. Third, the gifted student was to pursue a career, yet a woman was to run a household. Fourth, a gifted student is expected to develop his/her talents yet a woman is expected to put her career "second" to her husband's career. Fifth, a gifted student is expected to compete and succeed in math, science, and business, yet a woman was to be feminine and non-competitive.

Rodenstein, Pflieger, and Colangelo (1977) reinforced the idea that gifted females experienced conflicts that were exclusive to their gender, thus emphasizing the reasons why the gifted female existed as a gender-specific category. It appears that they did this in order to strengthen and enliven future research about gifted females. Research specifically about educational reforms and counselling was beginning to include gifted

males; obvious reminders about why gifted females were different from males were necessary. Rodenstein, Pflieger, and Colangelo also provided eight suggestions for teachers who worked with gifted females. These suggestions resonated with Fox's (1977) ideas about providing role models; however, quite a few of their suggestions recognized that the larger social environment must also be improved in order to benefit the gifted female. As a result, most of the suggestions had little to do with the gifted female per se; instead, they had more to do with schools and community structures. For example, they stated that teachers, counsellors, and administrators must suggest ways to change the structure of the school and community to support gifted females. Another statement was that teachers and counsellors needed to reaffirm their beliefs in the uniqueness of all students, regardless of gender, and come to realize their stereotypes about gender.

The authors concluded that the needs of *all* gifted students were important. They hesitated to specify the goals for gifted females and essentially, stated that effective career programs must be available to gifted boys and gifted girls. Their recognition of the reasons why the specific needs of gifted females had to be recognized could be appreciated within an academic context however, and this broadened efforts to be gender-inclusive while also showing that gifted females were to be recipients of specific educational reforms. Similar to Fox's (1977) efforts, Rodenstein, Pflieger, and Colangelo (1977) began their work with an intention to specifically benefit gifted females, yet they ultimately concluded that nearly all suitable educational and counselling suggestions should also be extended to gifted male students.

While researchers had developed a fascination with the gifted female and her hidden talents, they continually sought ways to further understand her and find similarities among gifted females. This was a trend started by Terman (1925) in his

detailed studies of gifted children and was imitated by several other researchers, such as Helson (1971). Although there was other research that studied the personalities of gifted females, there was still little known about the complete nature and personality of the gifted female. Maija Blaubergs, a feminist researcher of gifted females, investigated the lives of gifted female psychologists, scientists, artists and writers, politicians, engineering students, and mathematicians and concluded that gifted women were the same as gifted men because they behaved like men in the workplace. As important as Blaubergs' (1978b) findings were, they would also cause a questioning of the existence of the gifted female category. If gifted women were successful in a variety of careers, and also were similar to men, then why did females warrant additional attention? It had been suggested earlier that gifted women's successes were the product of imitating male successes; therefore, women were merely living the successful path that men had carved out for them (Groth, 1975) as opposed to having carved out their own unique path. Also, behaving like men did not mean that they were paid the same or promoted at the same rate and did not account for the child bearing that was expected of them.

Barriers Defined

Most significantly, Maija Blaubergs presented a highly influential paper listing all the barriers gifted women encountered and was the first person to apply the word "barriers" to refer to the struggles the gifted female encountered. This was important as Blaubergs (1978a) attempted to address, identify and specify the external barriers that researchers from Phase II and Phase III had attempted to understand. Within Blaubergs' work, barriers were divided into two types, external and internal. External barriers were as follows: a) the devaluation of women's achievements, b) ambivalence toward women's achievements, c) marriage, d) remaining single, e) divorce, f) husbands contributions, g)

children and contraception, h) interruptions, i) dual-career couples, j) lack of institutional and societal support, and k) the lack of role models. This extensive list was a clear reflection of the problems that gifted women had experienced in the past and were continuing to experience. For example, discussions about the conflict between marriage and children or a career had been deeply engrained in the gifted female literature since Hollingworth (1929) had discussed the "woman question" and gifted females' potential to manage both simultaneously. Watley and Kaplan (1971) also noted the priority given by women to marriage rather than a career. Quite possibly the most commonly acknowledged issue was the overall devaluation of women's achievements. This barrier was first discussed by Kopald (1924) when she questioned the significant lack of female geniuses.

Most of the external barriers that Blaubergs (1978a) outlined were common within gifted female research by this point. After she had identified external barriers, Blaubergs went beyond the external barriers to introduce the notion of "internal barriers" (p. 14). The concept of "internal barriers" was unknown and unaddressed at this point. Because many of the struggles that gifted females encountered were with their external surroundings, it was easier to identify the environmental and social influences that were causing them problems. However, never before was much attention given to the hidden psychological issues that represented barriers for gifted females. Examples of these internal barriers included: 1) achievement motivation, 2) self-concept, 3) motive to avoid success/fear of success, and 4) low-expectation cycle. What was most significant about Blaubergs' work was that many of the barriers she discussed were barriers that were experienced by all women. Blaubergs specification of the external barriers truly provided a strong foundation and direction for gifted female research. Furthermore, her mention of

internal barriers also broadened the current understanding and definition of barrier in relation to gifted women. As a result, this discovery would provide a platform for future research and would henceforth instigate further examination of internal barriers.

Academic Underachievement

As more revelations about how internal barriers could affect gifted females were unveiled, Jody Fitzpatrick, director of the Masters program in Public Administration at the University of Colorado Denver, conducted a study to further investigate academic underachievement and attitudes of bright adolescent females. Fitzpatrick (1978) provided a developmental context to investigate the impact of social barriers and influences and how these affected younger gifted females. Overall, the findings demonstrated that bright female adolescents started underachieving in middle school when they were exposed to messages about appropriate gender-role behaviours and, furthermore, when they had gender-specific subjects to study. She explained that gifted females internalize the belief that males are stronger at mathematics and that mathematics is a masculine subject. Specifically, she stated that those who were more susceptible to these widespread beliefs were more likely to perform less well. Fitzpatrick attributed their decline in self-esteem and locus of control to conflicting messages regarding traditional female roles, but was unable to fully relate the decline to these instances because there was little other empirical support for the concept. Fitzpatrick highlighted that research demonstrated that a negative attitude toward female success was established in males and females by adolescence and that there was a link between external messages and internal barriers, hence, both were related.

As a result of the research, the American educational system began to create programs that strongly encouraged and rewarded academic skills among students. Gifted programs were

The Gifted Female and Social Oppression

Similar to the previous focus on career development, the overall future of the gifted female became large and she was becoming symbolic of all the barriers faced by all women. Compared to previous researchers from the earlier phases, Charol Shakeshaft, who focused on women and educational administrative positions, and Patricia Palmieri who similarly studied women in academic positions, boldly addressed the social and structural barriers that prevented gifted women from achieving (Shakeshaft & Palmieri, 1978). Shakeshaft and Palmieri went beyond these barriers, such as marriage, children, and divorce, to indict the larger social institution as a perpetrator of the oppressions gifted females encountered. Examples of these social institutions were the education system, and social policy that failed to advocate for gifted female education. To address society as being the culprit in preventing gifted females from excelling was an audacious approach, as it would be difficult to provide tangible examples of this oppression.

Shakeshaft and Palmieri (1978) famously stated that the gifted woman was a "divine discontent," echoing the past seventy years of difficulties that gifted women experienced. They highlighted the factors that were inhibiting gifted women from excelling. First, they stated that only male geniuses had been discussed and written about. They stated that the launching of the Soviet rocket, Sputnik, in 1957 had the profound effect of highlighting the neglect of gifted women because they were denied as candidates for gifted programs at the time. The Soviets' launch of Sputnik, the first robotic spacecraft to gather data from outer space, spurred Americans to compete with the intellectual and technological superiority of the Soviet nation. As a response to the launching of Sputnik, the American educational system began programs that strongly favoured and rewarded academic skills among students. Gifted programs were

particularly influenced in that the American education system wanted to train and attract gifted students who could contribute to NASA and other American scientific and technological pursuits (Roeper, 2003). All the programs that were recognized and glorified stereotypically included the subject areas that males occupied. Because women were historically encouraged to enter more feminine subject areas, men achieved more and were granted more opportunities for being geniuses. It seemed an endlessly self-perpetuating cycle.

An area of discussion that had not been recognized was the fact that all gifted women were measured for success in comparison to men. Groth (1975) briefly described the masculine hierarchy under which women were succeeding, but little was known about what gifted women would or could achieve in the event that they followed a path that was uninfluenced by the male standard of success. The whole notion of "career development" was essentially framed as a masculine goal that had been adopted by women in an effort to excel. This posed a vital question that truly questioned the goals and the ideals for gifted female success and therefore asked: What is female success? To this point, the only model for achievement and success mirrored male success.

In a rather anti-climatic turn from Shakeshaft and Palmieri's (1978) assertions about the social oppression of gifted women and the lingering question about female success, Judith Rodenstein paired with Cheryl Glickauf-Hughes, who specialized in psychotherapy, to backtrack and address the main issue of marriage and careers for gifted women. Rodenstein and Glickauf-Hughes (1979) provided an in-depth look at the career and lifestyle determinants of 201 gifted women who ranged from homemakers to career-oriented women. This study demonstrated the effects of parental influences, career determinants, and the determinants and impact of educational attainment on gifted

women. The women were divided into two groups: Career Group and Homemaker Group. It was found that career-oriented women, regardless of what their partners wanted, pursued specifically, stereotypically masculine careers, such as medicine or dentistry. This finding supported Shakeshaft and Palmieri's assertion that females were on the masculine path to success. For homemakers, it was found that they were more interested in social occupations such as teachers and librarians, careers which are easier to match with child care responsibilities.

Counselling Gifted Females

Although Rodenstein and Glickauf-Hughes (1979) had approached the issue of marriage – an issue that had been covered extensively throughout Phase III – they slowly unveiled another area that was garnering more attention, namely the type of career that gifted females selected and more so, the type of career that gifted females should select. As researchers in Phase III attempted to unveil the barriers gifted females encountered, an attempt to ensure gifted females' potential was protected also arose. However, amidst the need for career development came the privileging and preference for specific types of careers that seemed most suitable for gifted women. In their study, they implied that gifted females should be drawn to more masculine or professional outlets as opposed to the role of a homemaker.

Given the confusion regarding the proper way to attend to gifted females' needs, and also given the assumption that their needs were much different from gifted males, Fox joined Lee Richmond, a researcher of career counselling and development, to look more closely at counselling solutions. Fox and Richmond (1979) introduced four specific counselling strategies for gifted females. First, they suggested that gifted females be placed in ongoing support groups, whereby they could explore a variety of career options.

Second was that gifted females be taught proper decision-making skills with regards to careers. The third strategy was for parents to become very knowledgeable and aware of their child's gifts and talents so they would be able to advocate for and help with educational decisions. The fourth was for counsellors to engage in self-reflection about their own gender-role stereotypes and how these may unconsciously affect counsellors who help gifted males and females. In addition to Fox and Richmond's suggestions, Rodenstein and Glickauf-Hughes (1979) also provided related suggestions including: 1) dispelling the polarity that you either had to be a homemaker or a career-oriented woman, and 2) discouraging the belief that career and lifestyle plans were irreversible. Personal growth of the gifted woman must be favoured and therefore counsellors must provide a variety of opportunities to gifted females. Rodenstein and Glickauf-Hughes' approach toward counselling females was not as rigid as others in that they did not direct females to enter strictly math and science programs, which earlier programs seemed to do. Instead, they encouraged an individual-based approach to guiding the gifted female – an approach that was introduced in Phase II but an approach that would often be overlooked.

At this point in the literature, there seemed to be a division in the attitudes expressed toward the future of gifted females. There was a strong desire to ensure that gifted females were focusing on careers rather than marriage. Fox and Richmond (1979) questioned whether gifted females' counselling needs were being met. They stated that only counselling gifted females into science and math courses would not increase their status and rank because outside of these math and science courses, they would likely face external barriers such as sex discrimination in hiring. Similar to Shakeshaft and Palmieri (1978) who stated that women merely following a male career path would not be provided with happiness, this denoted a shift in the attitude toward gifted females and

their futures. Because external factors such as gender-discrimination were also widespread, more than just women enrolling in masculine courses and entering male professions would be needed. Shakeshaft and Palmieri outlined three areas to be used when counselling: career interests; significant others; and, early identification.

Throughout Phase III, there was much attention given to the external barriers that prevented women from acquiring certain careers, and to the internal issues. As future-oriented as many goals for the gifted female were, there was also much neglect of individual needs of the gifted female during this time. Rather than exclusively catering to the individual needs and desires of the gifted female, gifted females seemed to be implicitly assumed to possess the same interests, needs, and strengths. As a response to this burdening assumption, Phase IV followed with an aggressive approach to helping and ensuring that the gifted female reached her individual potential.

Phase IV: Solutions; Educational Modifications and Curricular Suggestions for Gifted Females (1979-1986)

Throughout Phase III, the gifted female was symbolized by struggle more than success. This caused its own problems because the portrait of the gifted female was perpetually portrayed as negative and problematic and, in many ways, contributed to the weak, negative image of the gifted female that researchers were trying to avoid. It was clear and obvious that women, particularly gifted and career-oriented women, struggled in society, but the repetition in the literature caused an unbalanced focus on the problems and issues that affected gifted females. Toward the end of Phase III, the need to help gifted females overcome these barriers became more concentrated and focused, resulting in a literature that focused strictly on remediation and ways to help gifted females.

Unlike the previous three phases, Phase IV can be characterized as the phase that tried to solve the problem. Although Phase II and arguably, Bentley's (1937) research in Phase I attempted to help gifted females, the breadth of research in Phase IV was greater. Toward the end of Phase III, the barriers were specifically identified and this provided a firm ground for approaching these barriers with recommendations for their removal. Although all phases addressed educational support as a way to help gifted females, Phase IV truly focused on educational support to resolve the external problems and barriers that gifted women had been facing for decades.

Interestingly, Phase IV also began to expand the types of barriers that were widely accepted and assumed in Phases I, II and III. In Phase III, internal barriers were briefly discussed, but never formally considered until Phase IV, when the concept of internal barriers (e.g., self-esteem) was seen as being legitimate and a real concern that affected gifted female achievement. As a result, more studies addressing internal barriers surged. In many ways, research in Phase IV was dedicated to ushering in official and exclusive educational changes to save the gifted female, and, in doing so, concluded that the barriers that gifted females faced were far more complex than previously thought.

External social oppression was internalized among gifted females. As a result, this made educational modifications and curricular changes a much more difficult task.

Sex-segregated Education

As soon as career development was introduced as a key way to address the needs of gifted females, this approach presented some important questions. The types of careers that had typically been recommended for gifted females were professions that were considered masculine. Consistent with this approach, most Phase IV literature focused on encouraging gifted women to enter certain careers that had social status. As a result, this

greatly influenced the curricular choices suggested for gifted females. Suddenly, researchers began to argue that gifted females should be placed in enriched mathematics classes and programs or activities to enhance their visual-spatial skills – skills that were typically common among gifted males. At the beginning of Phase IV, Lita Linzer Schwartz (1980), a distinguished professor who specialized in abnormal psychology and child development, wrote a paper entitled “Advocacy for the Neglected Gifted: Females.” It was evident that the gifted female was understood to be a subject of neglect and a category that evolved out of problems. She analyzed the barriers facing gifted females and provided suggestions toward understanding the gifted female, regardless of the political climate. Schwartz summarized the main barriers in the literature: gender-role stereotyping, conflict between expectations for gifted students and women, and the fear of success. Schwartz’s identified barriers resembled many of the barriers that were previously mentioned in Phase III.

An interesting aspect of Schwartz’s (1980) work was her brief mention of the “re-education of society,” whereby she suggested that it would take more than educational modifications to nurture and help the gifted female reach her potential (p. 116). In many ways, Schwartz reflected Shakeshaft and Palmieri’s (1978) beliefs that society at large was to be blamed for gifted females’ struggles. Schwartz’s approach to this problem was to focus on solutions more than the problems – which seemed to be reflective of gifted female literature in Phase IV. One recommendation was to provide exposure and interaction with role models. While this approach had been discussed in the past (e.g., Bentley, 1937), Schwartz’s research built on this concept by suggesting that role models positively influenced the lives of gifted females and reversed gender-role stereotypes and hence, illustrated female achievement. She cited a study in which a female with a PhD

degree taught students history. The students, both male and female, reflected in their surveys that they had greater approval for her job and her intellectual abilities compared to a male or female teacher who had minimal educational qualifications.

What was most significant about Schwartz's (1980) work was that this was the first time that sex-segregated classes for gifted females were suggested as a solution. Schwartz believed that women could bond in these settings and develop a collective self-confidence that would help them with professional growth. Schwartz's type of gifted female research was useful but was still vague considering the lack of research that supported her recommendations. What was more problematic was that Schwartz in addition to previous works that included suggestions for gifted females, carried a common assumption: that educational reform would be effective for all gifted females. As proactive and beneficial as these suggestions were, they were not specific enough because they lacked diversity and flexibility to include the specific needs of gifted females.

Differentiated Curricula

Throughout Phase III, it was widely assumed that all existing gifted models and strategies would be effective and helpful for the gifted female. Perhaps one of the most significant contributions that Callahan (1980) made was openly acknowledging that the pre-existing suggestions for gifted females lacked substantial evidence that they were indeed effective for gifted females. She stated that the administrative options for gifted females, such as acceleration, enrichment, and independent study could equally be used and administered with gifted males because the cognitive differences between gifted males and gifted females were minimal. She also highlighted that research had failed to consider how these modifications would differently affect each gender, therefore,

assessing the efficacy of these programs was required. For example, research found that acceleration for girls was more difficult to implement because they feared that they would be taunted or visibly stand out for having masculine characteristics or male intellectual abilities. These findings echoed Fox's (1977) findings, which also found gifted females to be more hesitant to participate in special curricula such as acceleration due to the social stigma that became attached in doing so. Although acceleration was encouraged for gifted females, Callahan's (1980) stance was different as she stepped back to acknowledge the individual differences and needs that exist among gifted females. Callahan then provided a variety of suggestions. The first suggestion was to provide activities that would enrich and enhance gifted females' visual-spatial problem-solving skills. The suggestion was based on Maccoby and Jacklin's (1974) research that claimed boys tended to demonstrate stronger visual-spatial skills compared to girls. However, this research reflected the performance of a non-gifted population.

Role Models

Callahan's (1980) second suggestion was to provide role models of gifted women. In addition to Bentley (1937) and Schwartz (1980) who both recommended using role models to work with gifted females, Callahan also suggested this be used as a strategy for helping gifted females excel. However, what was different about Callahan's suggestion about using role models is that she stated that in addition to these role models being smart and successful, the role models also had to be "attractive" and "feminine" (p. 20). This aspect of her suggestion seemed to illustrate that a female's physical appearance and feminine behaviour was still valued in society, whether she was successful or not. The third suggestion was to teach gifted females activities that would help them recognize that they had control over their destinies, such as selecting careers that interest them. The

fourth suggestion was to provide opportunities for gifted females to interact with successful women. The final suggestion was to set equivalent standards and criteria for gifted males and females. Callahan's work was useful in that it encouraged shared criteria and equality for gifted students of both sexes. Because gifted females were viewed equally capable and as intelligent as males, Callahan saw no need for gender-segregated approaches.

Amidst the growing need for evidence-based educational strategies for gifted females, Barbara Kerr, a professor who specialized in counselling the gifted, conducted the first study that would provide data supporting counselling for gifted females. To this point, gifted female researchers had only theorized about the potential ways gifted females could be helped in the classroom, but there were no substantial data or research confirming which or what strategies were useful. Kerr (1983) collected a sample of 23 gifted girls and 25 gifted boys in grade 11 and attempted to determine who had lower career aspirations. Students participated in a one-day sex-balanced career guidance workshop and were asked to select a part of the university that they wanted to visit, select a career interest, and select a class to attend. Later, they visited the career counsellors to plan and discuss their future careers. Participants were then lead on the "Perfect Future" day whereby they got a glimpse of their ideal future through a fantasy. The results of the study showed that gifted females raised their career aspirations drastically from the pre-test to the post-test, which demonstrated how effective proper guidance counselling was for gifted females, at least on a short-term basis. What was most interesting about Kerr's study was that that modified and gender-specific counselling strategies were effective and added to the lack of substantial and much-needed evidence that gender-specific strategies

for gifted females might be valuable. Also, her findings demonstrated that gifted females could also succeed and demonstrate skills in the presence of gifted males.

Kerr's (1983) findings initiated a re-evaluation of the types of strategies that were continuously suggested, especially curricular suggestions, and also implied that there were probably more effective and useful strategies to be considered. Therefore, there would need to be more intensive research dedicated to investigating the best possible counselling methods for gifted females. Kerr had bolstered counselling as a prime strategy and counselling came to be considered a key strategy for ensuring success for gifted females. Although many strategies and educational reforms were developing rapidly, the plethora of ideas suggested were not evidence-based and very little was known about their actual effectiveness.

Internal Barriers

During this steady focus on educational and counselling reform for gifted females, Constance Hollinger's work emerged in the gifted female literature. Her primary area of research was in career development of gifted women and her work would have a strong influence on future gifted female literature. In 1983, she addressed a central question that remained unaddressed: What did the gifted female want to be and what were her goals? To this point, there was little attention to the personal interests and goals of gifted females. Rather, the goals were assumed and automatically applied to gifted females. Hollinger (1983) noticed that there was a significant lack of direction in counselling gifted females because there was little actually known about the thoughts, goals, and the self-esteem of gifted females. Hollinger's study promoted a movement toward understanding the gifted female as an individual as opposed to a population. Hollinger was breaking an assumption that was becoming rampant among gifted female researchers,

that being the assumption that gifted females were the same as one another. She addressed this gap in knowledge by conducting the first study that would solely study the self-esteem and thoughts of gifted females. Hollinger hypothesized that gifted females with higher self-esteem would possess both high levels of expressiveness (nurturance) and instrumentality (self-assertiveness). Her results indeed demonstrated that gifted females who scored high for expressiveness and instrumentality indeed had higher self-esteem. Hollinger felt that these findings would help counsellors determine ways to help gifted females acknowledge both their nurturing and assertive traits in order to increase their self-esteem. By encouraging students to embrace these aspects of their personality, they could develop stronger social and self-confidence, making them more able to succeed to their potential. In addition to encouraging gifted females to embrace aspects of their personality, Hollinger opened the doors to a new and different approach to studying gifted females. She exposed and drew attention to the internal barriers that gifted females faced. Although Blaubergs (1978a) had briefly mentioned internal barriers, Hollinger emphasized the need to re-examine the potential internal barriers that gifted females may face.

Hollinger's (1983) focus on internal barriers drew more attention to the thoughts, ideas, and feelings of gifted females. Hollinger joined Elyse Fleming, who focused on social orientation among gifted females, to study non-assertiveness, fear of success, and low self-perception as internal barriers. Furthermore, they studied the relationship between underachievement of gifted females in later life and its relationship to internal barriers. Hollinger and Fleming's (1984) findings revealed that females who had low self-esteem were of most concern to counsellors and teachers because they also scored significantly lower on self-perceptions and had moderate scores on mastery. Hollinger

and Fleming revealed that gifted females did not feel as though they experienced internal barriers and that some had no feeling of these pressures. The reality that there were some gifted females who did not feel as though they had psycho-social barriers suggested that not all gifted females were the same in how they dealt with problems. Although much of the literature in Phase III carried the assumption that external barriers negatively affected all gifted females, Hollinger and Fleming suggested that we must recognize that every female is different and is affected differently by their surroundings. In many ways, Hollinger and Fleming encouraged diversity among gifted females and emphasized that the uniqueness of each gifted female must be addressed and studied. The need to categorize and homogenize the gifted female was more intense in Phase III, but as information was gathered during this phase, the difficulties of trying to apply help and counselling to individual gifted females became a reality. There needed to be more focus on individual gifted females as opposed to the gifted females as a group.

Differential Treatment

At this point, the general research trend was beginning to seriously question specific approaches and tactics for helping gifted females. Callahan (1980) was skeptical of approaches that solely focused on gifted females by excluding males. Sharon Higham and Jane Navarre, both major proponents for differentiated education for gifted females, similarly began to question the notion of differential treatment for gifted females. Higham and Navarre (1984) believed that gifted girls should sometimes receive differential treatment in certain areas, but not all. They discussed a variety of recommendations to properly differentiate educational settings for gifted females. Many of these recommendations mirrored those made by previous researchers, but a different recommendation included a program for parents to encourage their daughters to pursue

their goals. Higham and Navarre based their program on research that confirmed that parents of gifted children played a vital role in how their gifted child learned and developed. The first area recommended for differential treatment was training in visual-spatial skills. They stated that since it was likely that elementary school teachers were more likely to be women, they might focus on more verbal activities rather than visual-spatial activities. Second, they stated that educational counselling should encourage gifted females to enroll in math and science courses. The third recommendation was to provide single-gender classes, workstations, and schools for gifted females based on the belief that women would benefit from learning in an all-girls environment. The single-gender classes would be situated within a co-educational setting, thus operating on the assumption that this setting would provide the best of both worlds for gifted female learners.

Similar to Callahan (1980), Higham and Navarre's (1984) argument to treat gifted females differently, particularly with regard to visual-spatial skills, was research that suggested there was a slight cognitive learning difference with regards to visual-spatial tasks (Maccoby & Jacklin, 1974). Maccoby and Jacklin's research claimed that boys demonstrated stronger visual-spatial skills than females but this research did not pertain exclusively to gifted students because the study was based on results from non-gifted students. However, Maccoby and Jacklin's findings seemed to influence and warrant differential treatment for gifted females. Furthermore, they suggested that such differentiation would also justify differential treatment for gifted males.

There was a slow movement toward recognizing the individual needs of gifted females that was encouraged by researchers Hollinger (1983) and Hollinger and Fleming (1984). This recognition of individual needs became the focus of Lynn Fox and Barry

Zimmerman's research. Fox and Zimmerman (1985) focused on individual-based strategies to enhance both academic and social development for gifted females. It was evident that the literature focused on counselling strategies because differentiation could take place when guiding and helping females within a counselling context. However, it was more difficult to differentiate curricula, instruction, and settings because that required more justification for such gender-based provisions. Fox and Zimmerman also believed that the greatest influence on gifted females could take place through a counsellor who could provide help and career counselling that was suited to the individual needs of gifted females. However, Fox and Zimmerman suggested that changes and modifications within the curriculum might not be as effective because these changes may fail to address the individual needs of the student. Additionally, these changes may only enrich the students' academic experience and ignore the more social, emotional, and developmental aspects that were essential to giftedness education. Fox and Zimmerman's individual-based strategy, counselling for gifted females, resembled the past suggestions of Drews (1965) and Groth (1969) who preferred to view the potential for self-actualization within gifted females.

One very strong point that Fox and Zimmerman (1985) made was that gifted females were truly different from one another and that these differences needed to be accounted for. However, the need to recognize differences but still strive for equality remained a true challenge within gifted female research. In addition to earlier research, Fox and Zimmerman argued that more research about how gifted females were treated was needed. In a sense, Fox and Zimmerman illustrated a major shift in the literature, as they stated that women could not be treated like men and using male standards to assess the success of gifted females was not appropriate. Fox and Zimmerman echoed

Shakeshaft and Palmieri (1978) by questioning the definition of success and noted how the traditional concept of success was essentially established by males and therefore, how success was understood was masculine in orientation.

Adopting a more critical approach toward differentiated education, Carolyn Callahan (1986) demanded that more attention be given to the origins of differential achievement that had long existed between gifted males and females, noting that, historically, people had been conditioned to accept lower achievement among females. Furthermore, Callahan stated that external "barriers" (e.g., Blaubergs, 1978a) were the primary cause for differentiated treatment and these were parental and teacher influences. Other factors that Callahan introduced were television, toys, and play, which was the first time that television and toys were introduced. Callahan's consideration of television as a factor negatively influencing gifted females' achievement signaled a shift to recognize media forms as potential external barriers. Through TV shows, such as *The Care Bears*, it was argued that stereotypical messages were transmitted to females about how they were to behave and how they were to achieve. No longer were stereotypical messages of females being of lower intelligence than males being presented in school textbooks, but instead, they were now being presented through technology. Callahan also suggested that toys and play could also be considered as having a negative effect on gifted females. Dolls and kitchen sets were believed to perpetrate the notion that those were the tasks that females were to fulfill.

Gender-neutrality

In the tradition of most gifted female literature of Phase IV, Callahan (1986) followed up her critique by providing suggestions for change. Interestingly, her first suggestion involved making general environmental changes, changes that included having

gifted boys and gifted girls learn together. She suggested that true change could only come from equal treatment of boys and girls within the same learning context. In doing so, positive messages could be transmitted to both genders at the same time. However, at this time, gifted females and males were not segregated in the classroom. Callahan's stance conflicted with the earlier suggestions made by Schwartz (1980), and Higham and Navarre (1984) to provide single-gender classes and curriculum.

The second suggestion Callahan (1986) made was to have gifted females and males play with and share gender-neutral toys. She suggested that teachers develop an awareness of the stereotypes that accompany certain toys and classroom activities. Also, the literature presented in class should contain explicit messages about gender-neutrality. Although many other researchers were beginning to dive into the unknown corridors regarding the internal barriers for gifted females, there still seemed to be a strong belief that it was external factors that strongly affected gifted female achievement. Reasons for this preference for external factors could be due to the fact that external factors weren't as complex to identify and change when compared to internal factors, which were more inter-connected and hidden.

Phase V: Internal Barriers; Critical Reconsideration of the Existing Goals for Gifted Females (1986-2008)

At this point in the education research, the literature was especially repetitive in that almost all focused on educational and counselling strategies to save gifted females from the harsh world undermining their abilities. The dominant themes continually resurfaced in the literature: barriers, career development, educational reform, and counselling. In the previous three phases, the belief that educational remediation and curricular modifications would accurately and effectively eliminate barriers experienced

by gifted females was prevalent. Phase V can be considered the critical phase in gifted female literature because no other phase used such a critical lens. Interestingly, perceived external barriers, such as marriage, were re-visited in Phase V, but in a different light. Instead, these barriers, specifically marriage, were believed to, in fact, contribute to gifted females overall life satisfaction (Hansen & Hall, 1997). Perhaps more importantly, gifted females were no longer the sole victims of gender roles. Gifted males were also being considered as negatively impacted by gender roles (Kerr & Sodano, 2003). This was a major change from the earlier claims made in Phase II and IV.

A new characteristic that was present in Phase V was questioning the word achievement and the derivation of the word. It was questioned whether or not achievement was the most ideal goal for gifted females, as achievement was typically understood to be mostly academic and career-related in the extant literature. Although Phase IV had introduced the notion of internal barriers, Phase V literature placed a concerted effort on identifying these internal barriers similar to the way that Phase III eagerly identified the external barriers that were believed to affect gifted females. The increased focus on internal barriers would require that many of the earlier educational suggestions be changed. Because these earlier suggestions were founded on the notion that barriers were mainly social and external, these suggestions failed to address the internal barriers that gifted females faced. As a result, this required that educational and curricular changes continue to be presented, but with the intention that they could help the gifted female both socially and emotionally.

Researchers who wrote and contributed in the Phase V period began to strongly question the goals and intentions that previous researchers held for gifted females. Previous researchers were critiqued for their inability to embrace various forms of success

and achievement. Phase V truly represented a major shift in gifted female literature as it illustrated deep reflection on the field and the meanings and assumptions on which the gifted female as a category was founded.

Phase V also looked at the strengths of gifted females. Never had the strengths and abilities been studied but instead, these were often overshadowed by the problems and barriers that gifted females were believed to be encountering. In addition to the shift in thinking toward gifted females' goals and aspirations, a different type of research approach to understanding the gifted female population was also introduced during Phase V. Ethnographic and other qualitative research methods were used to study and examine the lives of gifted females and no longer were gifted females being clumped together according to personality and skills, but instead, the lives and the voices of gifted females were being heard.

Another new characteristic that was evident in Phase V was considering the gifted male as deserving of attention, particularly attention directed toward the ways in which he may have been treated differently due to his gender. To this point, gifted females were assumed to be a single category that was negatively affected by external and internal barriers. Phase V encouraged reflection on the gifted male and any ways he may experience challenges within the classroom.

Underachievement and the Gifted Female

Sally Reis became a very prominent and regular voice in Phase V. Reis' (1987) focus on underachievement was one of the first works that focused solely on this issue. She defined underachievement as females simply not doing well in school. After Reis highlighted the issues regarding underachievement, she highlighted the factors that contributed to gifted females' underachievement. The factors were cultural stereotyping,

gender roles; and mixed messages. Although there was research that stated that gender-role stereotypes had little actual effect on the achievement of gifted females (Groth, 1975), Reis presented findings that, in fact, revealed that stereotypes were negatively affecting gifted females' achievement. The second factor that Reis suggested hindered the achievement of gifted females was a fear of success. The third factor that contributed to the lack of achievement of gifted females was the lack of planning. Many gifted females didn't have appropriate planning strategies to manage their career and family.

Previous literature had made the assumption that gifted females would always have these two aspects in their lives. There was no consideration that gifted females may not be interested in marriage or a career. Also, there was no consideration of ethnic differences among women and how this may affect their approach to marriage and career. There was no consideration of sexual orientation and how this would also impact their relationship with career and marriage. Because literature was operating under heteronormative and ethnocentric assumptions about gifted females, there was little known about individual gifted females' needs and interests and whether balancing marriage and career was truly a concern for gifted females.

Other factors Reis (1987) discussed were the perfection complex and the Imposter Syndrome, two relatively new factors related to female underachievement. The Imposter Syndrome refers to women's feelings of being "imposters", that is, women feeling they did not belong or were not worthy or did not earn or deserve success. They view themselves as imposters. The perfection complex was simply a state of mind whereby one was intensely obsessed with perfection and this particular state of mind increased internal criticism toward one's actions and accomplishments. Reis expressed concern about counselling strategies being unable to directly and effectively help gifted females.

Unlike other researchers before her, Reis also drew attention to the fact that internal barriers are, at times, caused by external barriers. External barriers and internal barriers were not necessarily separate from one another, but rather, interrelated. Like Reis (1987), who expressed doubts about educational counselling as a way to help gifted females, Kathleen Noble, a researcher of counselling for gifted women, expressed similar concerns and stepped back from the extant literature. Noble (1989) asserted that counselling services could, in fact, be the biggest barrier preventing gifted females from excelling. The main reason that she gave was the potential for counsellors to project biased expectations onto their clients. However, she highlighted that counsellors who worked with gifted females must consciously remember that gifted women tend to internalize cultural oppression around them and often feel very lonely and different. As a result, Noble emphasized that it was of crucial importance to be aware of assumptions or stereotypes that counsellors may hold about females and also stereotypes about gifted students.

Life Satisfaction

In 1988, Hollinger worked again with Fleming to conduct the first longitudinal study that attempted to determine predictors of life satisfaction among gifted females. They found that in young adulthood, self-perceptions of instrumentality and expressiveness were found to correlate with life satisfaction. Instrumental traits were considered more masculine traits such as independence and decisiveness whereas expressiveness was considered to be more feminine and it represented traits such as kindness and gentleness. Compared to earlier works, Hollinger and Fleming (1988) drew attention to the internal psychological aspects related to gifted females' self-perceptions. Because the correlations of instrumentality were related to life satisfaction, counselling

strategies could cater to these needs and this information. As a result, they provided substantial data to establish a foundation for future counselling directions for gifted females. For example, assertiveness training, goal setting, and life-worth planning were suggestions for helping gifted females and they also encouraged teachers and parents to recognize instrumentality in feminine roles and to highlight these features.

Following her work with Fleming in 1988, Hollinger (1991) highlighted the internal barriers and the lack of awareness of these barriers among gifted females themselves. Furthermore, she emphasized that the greatest concern was career aspirations and how such aspirations were limited to traditionally feminine jobs, such as teaching and nursing. As a result, Hollinger emphasized the need to integrate multiple life roles and importantly, have materials, information, and skills to help women cope with conflicts. Although Hollinger's more nuanced recognition of internal barriers and their complexities represented a progressive movement in gifted female literature toward a broader understanding of gifted females, gifted female literature continued to function under heteronormative and ethnocentric assumptions of the gifted female – those being that she was heterosexual and therefore in pursuit of marriage; and second, that she was a middle-class white female. There was no literature addressing gifted females from different socio-economic or ethnic backgrounds nor was there literature that included females with different sexual orientations.

As in Phase IV, there was still a strong tendency in Phase V to address control of the careers and aspirations of gifted females. However, research began to digress from emphasizing the traditional masculine careers as being suitable careers for gifted females. Hollinger (1991) went beyond the commonly stated masculine careers and instead provided alternative non-masculine careers that would be suitable and fulfilling for the

gifted female. For example, she suggested that a female who was a talented artist should not just be an artist, but instead an art gallery owner; therefore, she could exercise her entrepreneurial skills. Hollinger's work was important at this time because she suggested that gifted females should have a personal voice in choosing their careers. Furthermore, gifted females should not restrict themselves to stereotypical masculine careers simply because they were gifted.

Identity Formation

In addition to Hollinger's (1991) broadening of career choices for gifted females, Christine Phelps (1991), a researcher of identity formation and the development of gifted females, continued to broaden the expectations of gifted female achievement by introducing the concept of identity formation, suggesting that gifted females could only be successful if they were allowed to explore their identities to their fullest. At this point in the literature, there began to be a focus not just on the career that gifted females took, but also on the social and emotional adjustment and health of the gifted female. Phelps based the need for identity formation on Arthur Chickering and Linda Reisser's (1969) seven dimensions of identity development: developing competence, managing emotions, developing autonomy, establishing identity, freeing interpersonal relationships, developing purpose, and developing integrity. The key to identity development was to integrate these seven dimensions to create a strong and confident identity that would better enable a female to succeed. Phelps specified that identity formation be used to assist gifted females with career development, which illustrated that career development was the key concept under which all strategies and approaches for empowering the gifted female took place. Ways that were suggested for encouraging identity development were: first, providing opportunities for close and sustained relationships; second, encouraging a

student's involvement in activity planning and carrying out their education; and third, combining experiential learning with classroom activities. Phelps highlighted how all the seven dimensions would assist gifted females, specifically, their search for a meaningful and fulfilling career.

Gifted Female as Individuals

Suggestions for gifted females in the 1990s appeared to be more specific and researchers began to embrace more concrete plans for gifted females to follow. However, all these strategies and educational plans were created for the purpose of career development with the strong implicit suggestion that a career was the expected outcome for all gifted females. One change that distinguished this research from the previous efforts was that each gifted female was being increasingly recognized as an individual, separate from a group of all gifted females. Given this individual-based perspective, it allowed for more qualitative studies to be conducted on gifted females – studies that would investigate their internal psychological and emotional conditions.

The need for more data regarding the social and emotional development of gifted females was apparent. Linda Kramer (1991) conducted an ethnographic study of 29 gifted female students, which exposed their thoughts and feelings regarding their giftedness. What was interesting about her study was that data were collected through qualitative means. Many field notes were recorded about conversations and the thoughts of gifted females and formal and informal interviews were conducted with both girls and boys. What was found was that first, gifted females demonstrated that they felt that community and parental expectations had an influential effect on their attitudes toward achievement. Second, girls viewed their successes as being attributed to effort rather than talent or ability, whereas they believed that males possessed a natural ability to be

academically talented as opposed to requiring effort. When gifted females were asked to identify and define giftedness, they referred to it as "knowing the answer," and believed it was being able to do well without putting in any effort (p. 351). Unlike any other study before, Kramer revealed that gifted females felt that being liked and being socially accepted was a very important personal achievement, at times more important than academic achievement. In many ways, Kramer's work provided tangible proof that external and internal barriers were intricately connected to one another. Based on Kramer's findings, one could argue that the environmental surroundings and social expectations had a true effect on the internal barriers and obstacles that gifted females experienced.

As researchers continued to enrich the existing data about gifted females and expand knowledge pertaining to their social and emotional development, Reis, Betty Walker and Janet Leonard attempted to address the lack of knowledge about gifted females over a longitudinal timeframe – a type of study that was rarely done with regards to gifted females. Walker, Reis, and Leonard (1992) believed that many gifted women would experience a variety of socio-cultural changes that would affect their life decisions and this would occur longitudinally. They also believed that there was a type of Zeitgeist that affected gifted females, as all would be products of the socio-political environments and feminist movements that affected development and attitudes toward employment. Walker, Reis, and Leonard, therefore, sought to report information regarding personality characteristics and the decade within which a gifted female grew up. They administered a four-part questionnaire to women who grew up between 1910 and 1980, with 150 subjects from each decade. This study found groundbreaking data that demonstrated a strong influence of the Zeitgeist.

The results revealed that between the 1950s and 1970s, there was a strong increase in career-oriented women, with a marked decrease in homemakers. When discussing personality characteristics, it was found that gifted women of the 1920s were much less assertive compared to women in the 1970s and that women in the 1940s were much less ambitious than women in the 1970s. They then compared the personality characteristics of intellectually gifted homemakers to intellectually gifted workers and found that homemakers were substantially happier. It is important to note that the definition of happiness was not provided. I think a possible reason to explain this finding was the fact that homemakers did not have the stress of trying to manage a career with a family. Their work was reflective of the growing belief that external and internal barriers were interconnected because they sought to find a relationship between the external socio-political contexts and women's attitudes toward achievement.

These results differed from Rodenstein and Glickauf-Hughes' (1977) who found that women who worked and managed a family were quite satisfied. However, it can be argued that the sample may have been influenced by the feminist movement of the time that strongly encouraged women to find fulfillment in a career and family. Walker, Reis and Leonard's work was unique because it embraced the socio-political influence that affected gifted women.

Redefining "Achievement"

In Phase III, the definition and concept of 'achievement' was briefly discussed by Shakeshaft and Palmieri (1978) who questioned the origins of the definition of achievement. Hollinger and Fleming (1992) returned to this question as it was relevant to many larger questions. After researchers in Phase IV recommended curriculum and counselling strategies to better enable the gifted woman to achieve, at no point did any

literature question what achievement meant to the gifted female. Hollinger and Fleming embraced this question and asserted that in order to understand why gifted women underachieved there must be a closer look at the word achievement and rather importantly, its masculine patriarchal origins. Firstly, the concept of achievement was very narrow and limited to mainly vocational achievements in Phase II, Phase III, and Phase IV. Secondly, achievement was associated with male success (e.g., professional career; wealth). Achievement, as a male concept, can be traced back to when Kopald (1924) and Hollingworth (1929) addressed the inability of gifted women to achieve like men. It was at this point that the association between men and achievement was reinforced, and therefore, male achievement set the standard for gifted females to reach – simply because they were yet to achieve that level, according to Kopald (1924). In many ways, the concept of achievement in relation to the gifted female evolved during Phase I, when males became the basis for comparison with females.

Hollinger and Fleming (1992) closely looked at the perceptions of achievement among 126 gifted females between the ages of 27 and 29 years of age. They conducted a longitudinal study that examined the traditional and non-traditional achievements of gifted women, accomplishments from a traditional perspective, and accomplishments from a non-traditional perspective. Their study revealed that gifted women considered education as the highest form of traditional achievement compared to career and finances. The highest form of non-traditional achievement was personal growth, and the highest form of relational achievement was having a home and a spouse. Out of all three types of achievement, traditional achievement was the most valued, followed by relational achievement, and thirdly, personal achievement. When the gifted women were asked to list areas of achievement, their perspective of achievement was quite broad and much

more inclusive of achievements besides traditional ones. Achievement to these women was not just a career, but personal growth that encompassed family and home.

Factors of Eminence

Gifted female researchers had largely focused on the struggles and the problems gifted females encountered. As beneficial as this approach was, very little was known about the factors that gifted females found helpful in their quest for life satisfaction. Although Blaubergs (1978a) had briefly discussed the personality factors of "women who made it," Janice Leroux, an educational psychologist, looked more closely at factors, specifically external factors, that contributed to the achievement of gifted females. Leroux (1994) determined that the key factors that positively affected female achievement were: family relationships, mentor relationships, and cultural expectations. She discussed two studies that exposed gifted females' life concerns in an attempt to find consistencies between the groups and their perceptions of overall life satisfaction. It was revealed that family interactions, career aspirations, and mentor relationships were the main factors that helped the participants achieve. When parents had reinforced the fact that girls could be independent, the participants felt more able and confident in pursuing their goals. The other factor that contributed to success was career aspirations and having career goals to take control of their lives and steer their academic direction. Although there were few mentors available to gifted females, it was reported that they felt that a companionship with a teacher or another female with similar interests and abilities was very helpful and beneficial.

Leroux's (1994) approach to investigating the eminence factors among gifted females was different and beneficial toward enriching our knowledge about gifted females because she analyzed the positive aspects that encouraged and promoted

achievement. This approach was incredibly valuable because by knowing what helped gifted females achieve, educational or environmental changes could be made according to these factors.

Although Leroux (1994) took this different direction in order to acknowledge the factors that help gifted females achieve, Callahan working with Goldsmith (1994) returned to the traditional investigative approach that attempted to find flaws, problems and barriers that gifted females faced, perpetuating the notion that gifted females are indeed subjects of struggle. However, Callahan and Goldsmith (1994) contributed to the growing body of literature pertaining to the internal processes and emotional health of gifted females. Their research examined the differences in attitudes toward education, achievement, and the future between adolescent gifted boys and girls. Presuming that there would be notable differences, they found that gifted females believed they were strong in school, not because they were academically talented, but because they worked hard. This finding was consistent with previous research that suggested gifted females did not actually believe in their giftedness and instead attributed their gifts to another person or consequence (Reis, 1987).

Self-perceptions

Self-perceptions became a very popular area of study during the 1990s, as it was believed that self-perception would tease out truer answers, feelings, and thoughts about gifted females' experiences. Reis (1995) demonstrated that contrary to previous reports (e.g., Blaubergs, 1978a; Kramer, 1991), females feared their own talents and success, which seemed to validate the fear of success as being a factor that affected female achievement. Reis later provided evidence that suggested otherwise, that gifted females were not actually afraid of their talents, but were more curious and intrigued. The vision

that women were fearful of their own ability created an image of women being victim of their own potential. Reis (1995) was not clear as to why gifted females struggled to differentiate between personal and professional accomplishments, but her participants' inability to distinguish between the two was actually quite significant and supported Hollinger and Fleming's (1992) findings that gifted females possessed expansive definitions of achievement. In a sense, the struggle for gifted females to differentiate between personal and professional accomplishments signaled not so much a problem among gifted females, but a problem in the way researchers defined accomplishment and achievement.

A Return to Self-actualization

As the 1990s came to a close, it was clear that researchers were placing less emphasis on the external issues that affected female achievement and more on the internal issues. The movement was toward focusing on the needs of gifted females and furthermore, recognizing these needs as unique to each gifted female. There was also a movement directed toward broadening and including all types of achievement, regardless of whether they were considered more masculine or more feminine. April Whatley, a researcher of collaborative learning, took a similar approach when questioning the pre-existing literature containing goals that were being projected onto gifted females. She stated that throughout the 1970s and 1980s, gifted females had been continuously encouraged to enter male-dominated professions, mainly due to the fact that women had been excluded from these fields. Whatley (1998) acknowledged that teaching was historically considered a feminine occupation, however, she questioned whether and how many feminine jobs gifted females had been counselled away from when they had expressed interest in a particularly stereotypical feminine job. Her study was a cross-case

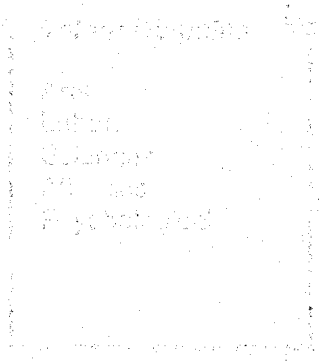
analysis of 12 gifted female teachers and each teacher was asked: "Tell me your life story," (p. 118). What was interesting about Whatley's approach was that she shifted from viewing gifted females as all being identical to one another to acknowledging that each gifted female was different from one another and possessed different histories and social locations. Notably, she also included the script and words spoken by these participants, which illustrated a more intimate research approach to understanding gifted females. Four themes emerged as characteristic of these participants. First, gifted female teachers were resilient and reflective, making them suitable candidates for the job and they demonstrated that they still possessed their talents and natural depth. Second, gifted female teachers expressed creativity within their profession and found that their profession as a teacher was the optimal outlet for expressing their talent. Third, they had collaborated with others and learned how to share their talents. And fourth, they believed they had the potential to have an influence as mentors on gifted female students.

Whatley (1998) then drew attention back to the initial efforts made by Drews (1965) and Groth (1969) to help gifted females self-actualize and fulfill their own needs. She argued that her participants were experiencing self-actualization within a profession that had been strongly criticized for being overly feminine. In this regard, Whatley's work was groundbreaking within the historical context of gifted female research because she started to purposefully re-evaluate the goals and the intentions that were common in gifted female literature. She encouraged validating the choices and the paths that gifted females took, whether it was more feminine or masculine. She drew attention to a career hierarchy that privileged gifted men and women, but neglected and ignored gifted women who did not share interests in these types of careers. Most importantly, she highlighted

the ways in which gifted female researchers could oppress gifted females by privileging certain careers over other careers.

The Model of Female Talent Development (Noble, Subotnik, & Arnold, 1999)

Figure 1 shows the Model of Female Talent Development (Noble, Subotnik, & Arnold, 1999) designed to highlight the interconnected barriers and factors that either contributed or deterred females from reaching their potential. Because no other framework had been created to address the unique experience of gifted females, this model was another way to understanding the gifted female.



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educational programs, accelerated program) and fields of talent (e.g., science, writing, art) that helped form the individual's potential. Finally, the product of the foundations and the filters resulted in the Spheres of Influence. The sphere of influence was defined as being the potential of the gifted person and influences could be both personal and public. An example of a personal sphere of influence would be self-actualization and an example of a public sphere of influence was possessing extraordinary levels of leadership. In this model, spheres of influence represented one's greatest potential, and also reflected earlier perceptions of gifted potential. Both Drews (1965) and Groth (1969) had believed that gifted females' highest potential was self-actualization. Interestingly, as most of the goals for gifted females had been previously defined as careers in male-dominated fields, Noble, Subotnik, and Arnold's Model of Talent Development reflected a change in the goals that were being set for gifted females. What was also interesting was that the model also highlighted the individual needs and obstacles of the gifted female.

This was a major shift toward identifying and understanding the individuality of gifted females. Most significantly, though, Karen Arnold, researcher of gifted women in the 1980s, and Rena Subotnik, who studied the careers of female scientists, joined Kathleen Noble and questioned the model's applicability to gifted males. Furthermore, they stated that gifted males were equally in need of attention and special programs. This consideration further demonstrated that there was a questioning of the exclusivity of the gifted female as a specific category. There was a slow recognition and movement toward the inclusion of the gifted male, especially when the strong feminist researchers, such as Noble et al., (1999), were beginning to broaden their perspectives to include gifted males when discussing differential education for gifted females.

Noble, Subotnik, and Arnold (1999), however, clearly stated that there were legitimate reasons for the model to pertain specifically to gifted women. The first was that there was evidence that gifted females commonly devalued their accomplishments compared to males. Second, women were always minorities when placed in a male-dominated environment. Third, women always faced having to reconcile family and career, a conflict that men generally do not experience. The researchers believed that these differences warranted and further reinforced the gifted female as a specific category.

In many ways, Phase V ushered in an era whereby the mere presence of the gifted female category inherently justified the presence of a gifted male as a gender-specific category. While researchers discovered more strategies that were applicable to both gifted girls and boys, the gifted female was being discussed in relation to gifted minorities (e.g., different cultural background, gifted impoverished) but also in relation to gifted males (Stormont, Stebbins, & Holliday, 2001). Although it had long been argued that the gifted female experienced issues that were separate and exclusive from gifted males, attention was beginning to dwindle on her as a separate category and instead, was being drawn to the gifted male. If gifted females were arguing that they faced issues exclusive to them, then that meant that gifted males must also be facing exclusive issues and social pressures specific to their gender. Interestingly, this shift to address gifted females and gifted males at the same time was encouraged by feminist researchers such as Reis (1989), Noble, Subotnik, and Arnold (1999), and Kerr and Sodano (2003).

Comparisons between Gifted Males and Gifted Females

Barbara Kerr joined Sandro Sodano, who had studied interest development and they made the first concerted move to specifically identify issues that affected both gifted

males and females. Kerr and Sodano (2003) stated that multi-potentiality, which is one's ability to be simultaneously talented and skilled at many different things, could be found in both males and females; however, it affected each gender in different ways. Gifted males received more pressure from their parents to follow a more linear career path, whereas gifted females had less pressure on their career choice due to pre-existing social norms that influenced females to focus on marriage and family prior to or in conjunction with career. Kerr and Sodano made a significant attempt to highlight the data that suggested that gifted males also suffered from issues exclusive to their gender. Thus they strongly encouraged gender-role socialization be analyzed in how it affects both gifted males and gifted females. Even though the goals for gifted males were more desirable and more valued by society, males too, were being controlled by a larger social agenda that strongly encouraged them to enter specific types of careers that were regarded as prestigious (e.g., engineering, medicine, and law). In many ways, Kerr and Sodano's insights demonstrated that gifted females and males were actually similar because society wanted both genders to achieve within specific confines. This was significant because no research since Terman's (1925) initial study sought to uncover the similarities between gifted males and females. Since each sex was to achieve within different boundaries, both genders were still affected by expectations that they use their potential in specific ways.

Even though Kerr and Sodano (2003) concluded that both gifted males and females experienced different issues, they were the first to state that both genders still *experience* problems. In many ways, gifted males were viewed as being neglected over the past years, as gifted females had received all the attention. Interestingly, this perspective was very much the same perspective that the earlier researchers such as

Kopald (1924) held about gifted females, and it was this perspective that had spurred the recognition of the gifted female as a gender-specific category. Kerr and Sodano could be credited for starting a new trend in the literature – that gifted males and gifted females both be given attention. The movement to recognize gifted males as equal and deserving counterparts for gifted education was new, and would have a definite influence on the works to follow.

Voices of the Past: Voices in the Present

As the literature began to slowly merge gifted males and females into one category, Reis (2003) voiced past intentions by drawing attention back to the gifted female as a singular category. She asserted that gifted females still experienced underachievement and issues differently from their male counterparts. Reis reminded readers that women were still not receiving equal education compared to gifted men and they were still less productive compared to gifted men and produced fewer publications because of childcare and family responsibilities. The strong point that Reis made was that gifted females still had no clear path and as a result, their lives were still more directed toward family compared to males.

However, Reis' beliefs and ideas about gifted females lacking the ability to balance their pursuits with relationships contrasted greatly with the current voice of Kirstie Speirs Neumeister (2002), who specialized in counselling gifted teenagers. She suggested that gifted females were quite successful with managing relationships, marriage, and interests. Although Speirs Neumeister's sample only consisted of three women, there was evidence that gifted women were learning how to balance their personal lives with their careers. Although Reis was persistent with the issue of gifted women and life balance, Speirs Neumeister's findings illustrated that this may not always

be the major issue Reis suggested. In a sense, it seemed as though the research priorities were shifting. Although Reis attempted to re-navigate the literature to recognize the lingering issues that gifted females experienced, this would be a struggle.

Shelley Fahlman, who researched emotional awareness and boredom, re-directed the research focus and suggested that one's perceptions of one's self as gifted had a large influence on one's achievement. Fahlman (2004) selected six gifted females between 18 and 25 and clustered them into two groups: Classic Achievers and Complex Others. The influence of Blaubergs' (1978b) earlier need to categorize and find similarities among gifted females was again evident. The first group was Classic Achievers, who perceived giftedness as being synonymous with intelligence and achievement orientation and expressed clear career goals. The second group, Complex Others did not express an internalized feeling of "giftedness." Furthermore, they had no identified sense of achievement. Similar to Whatley (1998), Fahlman made a significant research move by including interview excerpts that showed the actual thoughts of the participants.

Fahlman's (2004) effort to illustrate the humanness of gifted females was a positive move that recognized the individuality of gifted females, which had been lost, objectified, and generalized in past research. As a result, each individual was to be recognized as being distinct and unique from one another. Fahlman concluded that not all women were gifted in the same manner and, therefore it was difficult to attempt to change ideas and expectations when their perceptions of their exceptionality differed from one another. This conclusion demonstrated a major shift in the literature, especially when compared to the goals for gifted females of the past.

New Directions

As earlier researchers had begun critiquing the approaches that directed gifted females into certain professions, categories, types, and groups, Colleen Willard-Holt (2008) perhaps demonstrated the strongest recent change in the direction of gifted female research. Similar to Whatley (1998), she discussed the unfair pressures that counsellors, parents, and society had placed on gifted females. She also strongly believed in the right of gifted females to the career of their choice, whether it was deemed feminine or masculine. It was felt that research and ideas for the future of gifted females had reached a standstill as there were many questions surrounding the intentions and the potential biases that affect gifted females' choices of their educations and futures. Willard-Holt's critique of the current disapproval of gifted female teachers is in many ways a critique of the entire movement to ensure gifted females reach their potential. Willard-Holt alerted gifted female researchers about the narrow confines within which the gifted female had to live and achieve. Although the expectations and careers that were assigned to gifted females possessed the appearance of being prestigious, high paying, and highly respectable, they still carried the potential to be highly restricting for the gifted female to function within.

CHAPTER 4: DISCUSSION

Chapter three provided a chronological, historical review of the literature on gifted females that described how researchers' perspectives about gifted females changed and evolved over more than 100 years. Because the present study sought to answer a question that was potentially affected by all of the research reported in the previous pages, the literature review was also the primary data set to be analyzed and reported on. The current section comments on the method used to analyze the data.

This thesis was an historical pursuit to determine how and why the gifted female came into existence as a specific gendered category. It is important to note that the research used for my work was primarily based on research conducted within the United States. The population that is addressed within this work is primarily American; therefore, one should be cautious about generalizing and creating assumptions to apply to gifted female populations outside of the United States and certain populations inside the United States. The following is a summary of the phases on gifted females and the significant characteristics that distinguish each phase from one another. The summary also demonstrates the ways in which each phase was predicated on another.

Summary

Phase I: 1914-1960

Phase I introduced the question about whether gifted females existed. This phase is noticeably longer than the following phases for the following reasons. First, there was a considerable lack of focus within the literature in understanding the gifted female. As a result, the literature was scattered in its intentions and research goals. Phase I was open to questions about and exploration of the gifted female and therefore, the phase stretched out over four decades. In many ways, without this four-decade investigation of the gifted

female, the gifted female as a gender-specific category within educational psychology would cease to exist, as this space was needed to discover what constituted the gifted female.

This phase is distinguished by simply attempting to recognize the intellectual ability of gifted women. The phase was essential in that it framed the field for future research and embodied several characteristics that would appear in the following phases. Data about gifted females were first collected by Coy (1918) and she provided an individual profile of a gifted female. Within this profile, the gifted woman's intellectual abilities were highlighted; however, her differences were dually noted. These differences were behavioural rather than intellectual. Because the behaviour of this first gifted female clashed with the traditional and expected feminine behaviour, this was acknowledged as a type of dilemma. Although gifted females could study and learn the same way as gifted males, their behaviour stood out as abnormal.

In 1924, Kopald asked: "where were the female geniuses?" Her question had an influential role on research. Terman (1925) attempted to determine the intellectual capacity of gifted females in comparison to gifted males. This initial study suggested that gifted females were equally intellectual as gifted males, as determined by IQ. Although gifted females possessed equal intellectual abilities to gifted males, this evidence did not explain why women were still absent from professional occupations. As this question remained unanswered, Terman and Oden (1947) continued to gather data about the initial sample he studied in 1925. Their data implied that gifted women struggled to be professionally successful.

However, it was also in this first phase that the relationship between being gifted and being female was established as being problematic. It seemed as though the gifted

female faced difficulty achieving in the classroom because her behaviour was not feminine, which resulted in increased confusion about the gifted female. Hollingworth (1914, 1929, 1942), a prominent researcher and advocate for female intellectuals, interestingly stated that the gifted female would come to see that she is "of the wrong sex" (p. 176).

Phase II: 1960-1971

By Phase II, it was officially recognized that the gifted female was a category. Females were understood to be just as intelligent as males, yet with the belief that gifted females encountered more difficulties socially and professionally. This assumption led to more development of in-class supports for gifted females (Bentley, 1937). Phase II is visibly shorter than Phase I because Phase II had assumed and adopted the gifted female as a legitimate category, which was established within Phase I. Not as much room or time was needed to further explore and define who and what the gifted female was within the educational context.

Still with very little known about the lives of gifted females, researchers such as Drews (1965) and Groth (1969) both suggested that gifted females be candidates for self-actualization, a Maslowian perspective toward development. Drews and Groth believed that gifted females could and should reach self-actualization, which was believed to be a state of advanced learning and independence. Although the effort to support gifted females' learning suggested a positive movement toward allowing for gifted females to excel, it also perpetuated the notion that gifted females were essentially a population that would require extra support. This assumption would be adopted by following researchers in the upcoming phases.

In addition to the increased focus on educational support for gifted females, more attention toward their career aspirations grew. In response to the Terman and Oden (1947, 1959) studies that seemed to suggest women's lack of participation in the professional world, Phase II became the site for furthering knowledge and learning more about why females were not pursuing careers in the way gifted males were pursuing careers. Although there was research that was slowly beginning to consider the actual surroundings and external barriers, there seemed to still be a predominant belief that the inability of gifted females to immerse themselves in the professional world was due to their assumed natural propensity toward motherhood and social activities. There was still little written about the potential external barriers that were preventing gifted women from being successful outside the home and pursuing their interests.

Phase III: 1971-1979

Phase I and II acknowledged that gifted females were struggling to become professionally successful and eminent. As these Phases provided strong precursors for the research that would occur in Phase III, there was still much confusion about where and how to approach and understand the gifted female. In Phase I and II, there was a belief that the gifted female was the subject of struggle but the magnitude of this struggle and the roots of the problem were not well-understood and were often attributed to their personal traits (e.g., assumed increase in social interests). Phase III was more forceful in considering that perhaps the problem did not lie within gifted females, but instead the problems existed outside of them – that being in the institutions that possibly denied them access to these levels of professional success. Phase III introduced researchers who sought to better understand barriers to the gifted female, particularly, external barriers that hindered her ability to excel. To this point, there was very little explicit acknowledgment

about these barriers. Furthermore the term "barrier" was not used until Phase III, when Blaubergs (1978a) first introduced the term.

Rather importantly, the United States government published the Marland Report (United States Commissioner of Education, 1972), which provided an updated and expanded definition of gifted. Within this definition, creativity was recognized as a type of giftedness, which would have a strong effect on the extent to which gifted females were identified and studied. Up to this point, gifted females were recognized primarily within an academic sense and studied within the educational context. However, the Marland Report would usher in more researchers who would focus on creatively gifted women who demonstrated their talents in artistic arenas as opposed to academic arenas.

Amidst the introduction of the creative giftedness, there was an eagerness to identify and discuss external social barriers that prevented gifted females from excelling in professional spheres. Blaubergs (1978a; 1978b) first used the term, external barriers, to describe the obstacles that were believed to negatively affect gifted females and their success. Examples of external barriers were: marriage, lack of institutional support, motherhood (Blaubergs, 1978a), and gender-role stereotypes (Groth, 1976).

Suggestions for gifted females shifted from the self-actualized approaches developed by Drews (1965) and Groth (1969) to more educational and curricular-based approaches. Phase III produced the first introduction of acceleration and independent studies as educational options for gifted females. It was believed that these approaches would allow her to flourish in the classroom and henceforth, pursue her aspirations (Fox, 1977). The concept of career development was also discussed as a potential educational-based initiative to encourage gifted females to excel. Compared to the earlier approaches introduced by Drews and Groth whereby they encouraged educational support to nourish

the socio-emotional development of gifted females, Phase III researchers encouraged a more goal-oriented approach toward educating gifted females, as these approaches were to ultimately move them closer to professional careers of their choice.

Although this phase was very critical and essential in understanding gifted females and precisely, the social barriers that were believed to hinder gifted females from excelling and leading a meaningful life, there were implications that followed from these approaches. In an effort to highlight the struggles and label society as preventing gifted females from professionally succeeding, the needs, the traits, and characteristics, barriers, and personal life stories of gifted females became one. The gifted female became a homogenized category that lacked diversity, and researchers failed to recognize the unique differences among gifted females.

Phase IV: 1979-1986

Toward the end of Phase III, education was perceived to be the first and only outlet to freeing the gifted female from barriers to professional success. As a result, it can be argued that Phase IV was founded and subsequently fueled by the need to aggressively change the educational system. Early on in Phase IV, the rapid need to alter the education system dominated gifted female research and literature. It was during this phase that sex-segregated classrooms were first suggested as a way to help gifted females excel, free from the in-class domination of males. There was also a strong focus on encouraging gifted females to not just enroll in any course of their choice but to enter math and science courses (Shakeshaft & Palmieri, 1978).

Although a plethora of curricular and classroom changes were being suggested to enhance achievement of gifted females, the definition of achievement and its traditional association with male success was first discussed by Shakeshaft and Palmieri (1978).

Never before had the actual word, achievement, been considered in relation to gifted females and their ability to pursue their goals. What were the goals of gifted females? Were they to be only professional? What was the definition of achievement for gifted females and would it be the same as the definition of achievement for gifted males? It seemed as though many of the educational approaches and changes embraced and honoured masculine careers, such as medicine and engineering, as being suitable for gifted females.

One could argue that that after four phases of literature and research of gifted females, there would be a clear focus and goal for gifted females. However, there were still aspects of the gifted female that remained untouched and unknown within academic literature. In Phase IV, internal barriers as a topic was first discussed by Hollinger (1983) and were defined as being the internal and psychological barriers that prevented gifted females from achieving. To this point in academic literature, never had the hidden and more invisible barriers been considered. The consideration and discovery of internal barriers, as being a legitimate obstacle for females, demonstrated that barriers were far more complex than initially thought by earlier researchers, such as Blaubergs (1978a), who assumed such barriers existed only outside of the gifted female. The Imposter Syndrome, an internal barrier discussed by Reis (1987), described how gifted females attributed their successes and achievement to factors other than their own talent and ability.

Phase V: 1986-2008

Because the literature from the previous phases assumed that fixing the external surroundings of gifted females would help them, there was very little in terms of supports designed to foster and nurture the psychological and emotional health of gifted females.

There was no understanding of the ways in which gifted females' emotional health could have been impacted by external oppressions. Therefore, more research in Phase V focused on self-esteem and socio-emotional development among gifted females. Phase V was longer compared to Phase III and Phase IV because within this phase, larger questions and critique were re-introduced to the literature. For example, Phase IV focused heavily on curricular accommodations for gifted females, but Phase V questioned the legitimacy of these educational supports for gifted females.

Toward the end of Phase V, Willard-Holt (2008) asked a pertinent question that was only briefly mentioned earlier in Phase V by Whatley (1998). What are the true interests of gifted females? Never had any other phase sought to understand and listen to the individual voices of gifted females, but instead, assumed that they wanted the same careers and had similar interests. As a result, educational remediation had been pushed toward traditional masculine professions, such as medicine and engineering. Willard-Holt re-directed the attention back toward the personal goals of the gifted female. Efforts to encourage females to enter law, medicine and engineering reinforced the idea that traditionally masculine jobs should be privileged and desired. The efforts discouraged gifted females from pursuing traditional feminine jobs (e.g., nursing and teaching).

Willard-Holt's (2008) critical approach toward the extant educational psychological literature about gifted females spurred this exploration of the origins and interpretations of the gifted female in the last 100 years. Her question about researchers' goals for gifted females truly ignited deeper questions related to the gifted female as a separate category. Most importantly, it prompted the question: Why does the gifted female exist? Without critically exploring and understanding the foundations on which the gifted female, as a gender-specific category exists, it is difficult to continue adding to

the existing research when there is a lack of reflection about why the gifted female exists as a gender-specific category.

Why does the gifted female exist?

The literature demonstrates that the gifted female as a gender-specific category was founded on the notion that she was different not due to her intellectual abilities but due to her social differences. This early distinction can be located in Phase I, whereby Terman (1925) determined gifted females indeed possessed intellectual ability equal to gifted males. Rather importantly, the question to be asked is: Do social differences between gifted males and gifted females warrant gifted females as a separate category from gifted males? It is difficult to justify a separate category for gifted females within a narrow educational psychology interpretation as such a category would be founded on perceived social differences as opposed to learning and intellectual differences.

The terms gifted and female have different roots. Gifted refers to the exceptionality whereas female refers to one's sex and social role. It can be argued that very early in literature, upon learning about the social differences that separated gifted males from gifted females, the term 'gifted female' came into existence. However, it must be highlighted that this term was founded not on intelligence differences but social differences. The term 'gifted female' was automatically adopted by several researchers who sought answers to the question: Where are all the female geniuses?

Implications for Education

The literature on gifted females, however, raised many interesting questions that pertained not just to gifted females, but the nature of educational practice, differentiation, and how we treat students who are identified as gifted. A main objective of this thesis was to demonstrate the implications and repercussions that can arise when assuming the

presence of a category in educational literature without considering the history and the origins of the category. When a category is assumed to be legitimate, educational reforms, remediation and life counselling are set in place to meet these assumed needs. What is most detrimental is not considering the definition of the category and most importantly, the legitimacy of the category. Provided the extensive history and analysis, implications for educational practice have been gathered in an effort to stimulate critical and ethical treatment of those with exceptionalities. Although these suggestions are a response to the current treatment of gifted females, as recommendations they can be used to reflect upon current educational practice in any context.

Individualized Treatment

In the hundred years that gifted females have been studied in groups, their needs, personalities, and interests have been blended into a generalized category, leaving very little knowledge and information about the individual gifted female. Only recently has there been a push to allow gifted females to recognize and embrace their personalities, traits, interests and choices, regardless of whether these choices are stereotypically masculine or feminine.

Individualization is believed to be necessary to providing successful and effective education and guidance to those with special needs (Edmunds & Edmunds, 2008). There are very few attempts made in the existing literature to distinguish, differentiate and embrace gifted females as individuals. Instead, she is placed into groups and categories with others according to her personality, learning interests, self-perceptions, and other traits. It is important that individualization be considered when continuing to study and understand gifted females. Although many of the quantitative, group average measures that were taken to gather data on the gifted female were crucial to understanding gifted

females and their backgrounds, it can be argued that there should be equal attention to the depth and complexities of the individual and unique nature of gifted females.

Equal Assessment and Guidance

It is evident that the extant literature on gifted females has been influenced by feminist goals and a feminist agenda. It is also apparent that teachers, counselors, and parents have an influence on the lives and choices of gifted females. So much literature has continued to push and enforce the notion that gifted females are suited only for prestigious careers in which they can exercise their potential and abilities. This may have been a reaction toward women being streamed into careers as home. However, it must be recognized that although these careers may provide women with respect and opportunities to exercise their gifts and talents, they may be equally confining for the gifted female. As Willard-Holt (2008) argued, the gifted females' primary interests should be considered, regardless of whether these interests are accepted or not. Therefore, it is important for teachers, counsellors, and parents to practice openness when guiding the gifted female throughout her life and henceforth avoid placing her in a larger category in an effort to understand her.

Professional Equality

Career and professional outcomes of gifted females have been a prominent area of focus in literature. Often these outcomes were forged into a similar path: engineering, science, medicine, law, and finance. Gifted females were repeatedly encouraged by career counsellors and parents to enter professions that were typically considered male professions. However, inequality is being produced in this manner in more than one way. Inequality is produced on an individual level and it is also produced on a structural level. First through the identification as gifted, some are automatically privileged and

encouraged to enter these "high-paying" careers. All other non-gifted females within the classroom are not as privileged. Thus we reproduce professional privilege among some, and disadvantage other female classmates but also, male classmates, except for those also seen as gifted.

Willard-Holt (2008) succinctly addressed this issue by questioning why gifted women teachers are not as respected as other gifted professionals. Repeatedly throughout the literature, curricular enhancements encouraged gifted females to enter professions that were seen as stereotypical male jobs. In doing so, many of these strategies also reinforced that there is only one type of achievement and that achievement exists within a masculine framework. By continuously encouraging gifted females to enter professions such as sciences and medicine, this reinforced that stereotypical-male professions were more desirable and more respectable and jobs in the teaching and nursing field were denigrated.

It is imperative that we examine the larger social and economic structure that allows for certain professions to be privileged. Also, we must closely examine how the Western world tends to value people who exhibit exceptional intelligence, and use their intelligence to gain economic status and pursue a profession whereby they can gain privilege. We must ask questions like: how do we value both men and women in the community? Why are certain professions privileged over other professions? I think a very important question to ask is: if professional equality existed, would the gifted female exist? One could argue that had professions not been stratified according to social privilege and economic importance, we could possibly embrace and accept a larger scope of giftedness. This privilege strains how we view and how we can accept giftedness in both women and men.

Rethinking the Term “Gifted”

In addition to considering professional equality and its relationship to gifted females, an important area that future research might embrace is the re-thinking of the category “gifted.” An important question to ask is: What does “gifted” mean? In what ways is the term “gifted” received? Future research needs to focus on what the word means and what social implications are associated with using the word to describe an individual’s abilities and talents. My findings demonstrate that often, there is a socially hierarchical relationship between the gifted student and her classmates when the word “gifted” is used to describe her and her abilities. Automatically, the gifted female is considered for more “prestigious” professions and overall, a more “prestigious” future whereas the other non-gifted students, both males and females, are not considered for these high-status careers. The word “gifted” is often associated with certain curricular enhancements; however, these enhancements turn into privileges within the classroom and benefit these individuals in a social manner, and eventually prove socially and economically beneficial. Historically and currently, “gifted” curricula has allowed for gifted students to be academically included. At the same time, “gifted” is a word connected with social neglect of other students. Is this term applicable in the twenty-first century, in a classroom that is attempting to practice inclusion and social equality? What message is being sent to non-gifted students and will this message be carried with the classmates throughout the remainder of their schooling and career? Is it possible to provide curricular enhancements for gifted persons without assuming some sort of social and economic privilege? Before we continue to engage in careful examinations of the gifted female, it is crucial that we embrace the ways in which the larger socio-economic context influences outcomes for gifted females and how giftedness reproduces social

privilege among both male and female students, gifted and non-gifted. Although it can be argued that identifying and labeling students as being "gifted" is engaging in social equality by recognizing their needs for curricular enhancements, it is essential that we consider how being labeled "gifted" is related to social and economic prosperity and status.

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