

Examining Lowenfeld's Theories and His Contributions to the Field of Art Therapy

By
Meghan Sullivan
Master of Arts

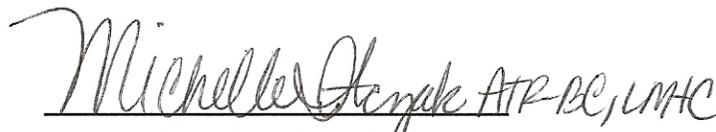
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Abstract

Viktor Lowenfeld developed six distinct stages of development in his book *Creative and Mental Growth*. Currently there is limited information on the formation of these stages and the connection to their use in art therapy. The intent of this thesis was to synthesize information on the formation and methodology of Lowenfeld's developmental artistic stages in order to understand Lowenfeld's contributions to the field of art therapy. A systematic literature review was conducted to gather current and archival resources related to Viktor Lowenfeld, his methods of research, his theory on artistic development, and his relevance to the field of art therapy. Research was collected from Indiana University Purdue University library resources and Pennsylvania State University Archives. Findings showed that Lowenfeld developed his theory based on other theorists of his era. Each theorist contributed to either his stage theory design or general concepts of certain stages. According to record, Lowenfeld developed his theories in the 1940's, and these were based off his work with children in Austria and the United States. There is no available information on the demographics or the method Lowenfeld used to collect information about the children he worked with. There have been augmentations since Lowenfeld's death in an attempt to keep information in later editions relevant. Lowenfeld's work has been historically called upon in the profession of art therapy. As the field of art therapy continues to evolve, there is a need for evidence based theories to substantiate what has been relied upon in the past. Levick's stages of artistic development are evidence based however more information needs to be gathered. Future recommendations are for art therapists to conduct systematic research on children's artwork and create a normative base of children's artwork based on current demographics and societal changes.

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Meghan Sullivan

Submitted to the faculty of the University Graduate School

in partial fulfillment of the requirements for the degree

Master of Art in Art Therapy

In the Herron School of Art and Design

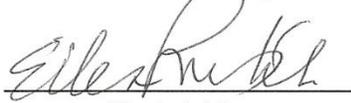
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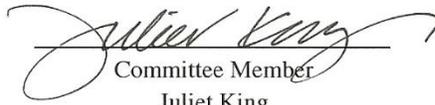
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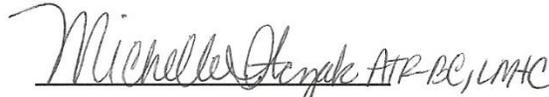
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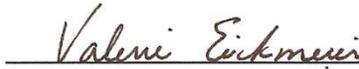


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Abstract

Viktor Lowenfeld developed six distinct stages of development in his book *Creative and Mental Growth*. Currently there is limited information on the formation of these stages and the connection to their use in art therapy. The intent of this thesis was to synthesize information on the formation and methodology of Lowenfeld's developmental artistic stages in order to understand Lowenfeld's contributions to the field of art therapy. A systematic literature review was conducted to gather current and archival resources related to Viktor Lowenfeld, his methods of research, his theory on artistic development, and his relevance to the field of art therapy. Research was collected from Indiana University Purdue University library resources and Pennsylvania State University Archives. Findings showed that Lowenfeld developed his theory based on other theorists of his era. Each theorist contributed to either his stage theory design or general concepts of certain stages. According to record, Lowenfeld developed his theories in the 1940's, and these were based off his work with children in Austria and the United States. There is no available information on the demographics or the method Lowenfeld used to collect information about the children he worked with. There have been augmentations since Lowenfeld's death in an attempt to keep information in later editions relevant. Lowenfeld's work has been historically called upon in the profession of art therapy. As the field of art therapy continues to evolve, there is a need for evidence based theories to substantiate what has been relied upon in the past. Levick's stages of artistic development are evidence based however more information needs to be gathered. Future recommendations are for art therapists to conduct systematic research on children's artwork and create a normative base of children's artwork based on current demographics and societal changes.

Keywords: Viktor Lowenfeld, artistic development, developmental stages, art therapy

Dedication

To my mother and father, who helped me to keep moving forward and helped me become the person that I am today. Your love helped me become stronger.

Acknowledgment

This thesis would not have been possible without the care and support of my family and their encouragement. Their wisdom helped guide me through writing this and I express my deep gratitude for all their constant support. I hope to give back all the hope and support they have given me these past few years.

In addition, I wish to thank my thesis advisors Eileen Misluk and Juliet King for providing academic support and guidance through the writing process. Their comments and support allowed me to grow and develop as a writer and researcher. I cannot express how indebted I am for giving me the direction I needed to complete this thesis. Their knowledge will never be lost, and I will continue to help others as they have advise me.

Lastly, two individuals who understood my process and helped to provide assistance were Uriah Graham and Meredith Weber. Uriah helped to refocus and provide reassurance throughout this process and without whose help I would have never finished. Meredith provided much needed assistance in gathering information at the Pennsylvania State Library in the special collections library, whose help allowed me to obtain and understand the resources from Lowenfeld's original collection.

EXAMINING LOWENFELD’S THEORIES

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CHAPTER I: INTRODUCTION

Victor Lowenfeld was an art educator who had great influence within the field of art education and his work continues to have a significant impact in the field of art therapy. Lowenfeld's theories of artistic development originated in the 1940's, when childhood development was the prevailing field of study (McWhinnie, 1991). The field of psychology heavily influenced Lowenfeld's writing and theoretical development, in particular the work of Sigmund Freud and the discipline of psychotherapy (Lowenfeld, 1947a, McWhinnie, 1991). The burgeoning field of art therapy emerged during the same era with its roots in both art education and psychotherapy (American Art Therapy Association, 2014).

Lowenfeld developed foundational theories related to art and childhood development. In 1947, Victor Lowenfeld published a theory on artistic development wherein he identified and defined artistic stages. In his book, *Creative and Mental Growth*, Lowenfeld outlined six artistic stages of development from infancy through adolescence based on social, emotional, intellectual, and psychological growth (Lowenfeld, 1947a). The developmental stages, beginning with the 'scribble stage' and concluding with the 'age of decision,' incorporated key areas of development and correlating age ranges. Lowenfeld's theory uniquely incorporated creativity, art making, developmental, and psychological theories that emphasized the uniqueness of individual growth within each child (Michael, 1986). Art therapists have relied on these stages to inform their perspectives from assessment to the development of treatment planning (Malchiodi, 2012). Lowenfeld's work has been utilized in understanding projective assessments, such as the House-Tree-Person assessment, the Draw a Person assessment, and the Kinetic Family Drawing assessment (Groth-Marnat, 1999). His theories helped provide a normative base for assessment

and diagnosis based on both the creation of developmental stages and categorizing children's artwork by age (Deaver, 2009).

However, a number of contemporary art education and psychology researchers no longer support his work. Contradictions to this theory are evident in the work of Alter-Muri and Vazzano (2014), who state that Lowenfeld's theory of artistic development does not provide a standard basis for children's artwork that can be applied across cultures. Based on global changes since Lowenfeld's initial development in the 1940's of *Creative and Mental Growth* we begin to wonder about Lowenfeld's current relevancy. As the field of art therapy continues to grow, so should our current understanding of Lowenfeld's work. Deaver (2009) confirms Lowenfeld's theories as a reference for understanding human figure drawings in the field of art therapy research. The question then becomes, why do art therapists utilize his work as a basis for understanding artistic development and are his theories valid to current demographics? Art therapists need to explore the validity of Lowenfeld to the field of art therapy. One way to prove validity of Lowenfeld's theories would be to look at his methodology and the way in which his artistic theories were developed.

By providing a clear understanding of Lowenfeld's methods and theoretical background, the impact and sustainability of his theories can be more fully understood, replicated, and assessed in future research. The intent of this thesis is to gather and synthesize information on the development and methodology of Lowenfeld's artistic stages in order to understand the connection and contribution to the field of art therapy. A systematic literature review was conducted to gather current and archival resources related to Viktor Lowenfeld, his methods of research, his theory development, and his relevance to the field of art therapy.

Operational Definitions

Artistic developmental stages: “[P]redictable ways, going through fairly definite stages starting with the first marks on paper and progressing through adolescence,” (Lowenfeld & Brittain 1970, p.36).

Art Therapy: “A mental health profession in which clients, facilitated by the Art Therapist, use art media, the creative process, and the resulting artwork to explore their feelings, reconcile emotional conflicts, foster self-awareness, manage behavior and addictions, develop social skills, improve reality orientation, reduce anxiety, and increase self-esteem,” (American Art Therapy Association, 2014).

Art Education Therapy: “To use creative activity as a means of self-realization,” a term developed by Victor Lowenfeld (Lowenfeld, n.d.c., p.1).

Human figure artwork: “[P]rojection of the self into the picture,” (Lowenfeld & Brittain, 1947a).

Social Growth: “The degree of identification the child has with his own experiences and the experiences of others,” (Lowenfeld & Brittain, 1970, p.29).

Emotional Growth: “The intensity with which the creator identifies with his work,” (Lowenfeld & Brittain, 1970, p.23).

Intellectual Growth: “Child’s growing awareness of himself and his environment,” (Lowenfeld & Brittain, 1970, p.25).

Creative Growth: “Inventing his [the child’s] own forms and putting down something of himself in a way that is uniquely his,” (Lowenfeld & Brittain, 1970, pp.32-33).

Schema: “The concept at which a child has arrived and which he repeats again and again whenever no intentional experience influences him to change this concept” (Lowenfeld & Brittain, 1970, p. 145).

CHAPTER II: METHODOLOGY

In order to gain a deeper understanding of Lowenfeld's theoretical development and professional impact, a systematic literature review was conducted to gather data, evaluate sources, synthesize information, and report this data in a way that can be clearly understood (Rojon, McDowall & Saunders, 2011). Data was gathered through two main sources: Indiana University Purdue University Indianapolis (IUPUI) research databases, and the special collections library at Pennsylvania State University. The research databases accessed included: PsychINFO, PsychARTICLES, ERIC database, IUCAT (IUPUI search engine) and Google Scholar (see Table 1). Key search terms used are organized by topic and are found in Table 2. The research gathered was organized using a literature matrix. A literature matrix is used to organize and synthesize information based on search terms and common themes (Ingram et al., 2006).

Table 1: *Databases Utilized in Research*

Search Engines	
Eric	Google Scholar
PsychINFO	IUCAT
PsychArticles	

Table 2: Search Terms Used in Research

Theorists	Developmental Stages	Lowenfeld	Art Therapy
W. Lambert Brittain	Creative and Mental Growth	Viktor Lowenfeld	
W. Lambert Brittain	Creative and Mental Growth		
W.L. Brittain			
William Lambert Brittain	Creative and Mental Growth		
Brittain	Creative and Mental Growth		
Brittain	Developmental Stage Changes		
Karl Bülher	The Mental Development of the Child		
Karl Bülher	Die geistige Entwick- lung des Kindes		
Karl Buelher			
Bülher			
Karl Bulher			
Franz Cizek	Art education		
Franz Cizek	Art development		
Franz Cizek		Lowenfeld	
Franz Cizak			
Sigmund Freud	Developmental Stages		
Sigmund Freud	Psychodynamic Theory		
Sigmund Freud	Theory		
Sigmund Freud	Developmental Stages		

Sigmund Freud	Theory development	Lowenfeld
Freud		Art
Freud		Dreams
S. Freud		
Friedrich Froebel	Childhood Development	Lowenfeld
Friedrich Froebel	Childhood Development	
Friedrich Froebel	Kindergarden	
Friedrich Froebel		
Froebel		
Walter Krotzsch	Rhythmus und Form in der freien Kinderzeichnung	
Walter Krotzsch	Rhythm and Form of Free Art Expression of the Child	
Krotzsch		Lowenfeld
Krötzsch		
Siegfried Leinstein	Untersuchungen uber das Zeichnen des Kindes bis zum 14, Lebensjahre	
Siegfried Leinstein	Inquiries About the Drawing of Children Until the Fourteenth Year of Age	
Leinstein	Developmental Stages	
Lowenfeld	Creative and Mental Growth	
Lowenfeld	Developmental Art Stages	
Lowenfeld		Art Therapy

Lowenfeld			Developmental art therapy
Viktor Lowenfeld	Creative and Mental Growth		
Viktor Lowenfeld	Developmental Stages		
Victor Lowenfeld			Art therapy assessments
Victor Lowenfeld		Penn State	
Victor Lowenfeld	Development assessments		
Georges Luquet			
George Luquet			
Georges Henri Luquet	Developmental art stages		
G.H. Luquet	Le Dessin Enfantin		
G.H. Luquet	Children's Drawings		
G. Luquet			
James Sully	Outlines of Psychology: With Special Reference to the Theory of Education		
James Sully			
J. Sully			
Sully			

Additional sources were obtained through the identification of new key words during the initial search. The initial search also provided an understanding of the availability of resources pertaining to Lowenfeld's original research model. Bibliographies from reputable sources were used to locate additional articles. The articles obtained through bibliographies were assessed based on relevancy to the topic and included in the literature matrix. The archives collection was located by researching where Lowenfeld last taught, Pennsylvania State University.

Limitations during the initial search exposed original documents that were not digitally available for viewing. Due to this limitation, the information needed was gathered in-person from the special archives collection at Pennsylvania State University (PSU) on two separate occasions. Necessary information related to Lowenfeld's professional career and research methodologies were found in the Special Archives Collection at PSU where they were organized by topics under the title *Viktor Lowenfeld Papers 1880-1985*. Prior to the visit, the Special Archives librarian at PSU provided an on-line database of the organized collection (Appendix A). The resulting sources used in the literature review from the Special Archives Collection were organized in Graph 2. The online database was compared to the literature matrix for key terms and themes for relevancy of the information. Documents were stored in numerous boxes in the collections. Applicable documents to this research were recorded and the corresponding boxes were requested and obtained by the Special Archives Librarian prior to arrival. The researcher allotted one day for gathering information. The information gathered was recorded through digital scans at PSU and upon completion of data gathering, the information was organized into the existing literature matrix. One requested box was not available upon original visit. This resulted in a second visit to PSU to collect the final data. The resulting information was organized and synthesized for relevancy into the literature matrix.

Data Analysis

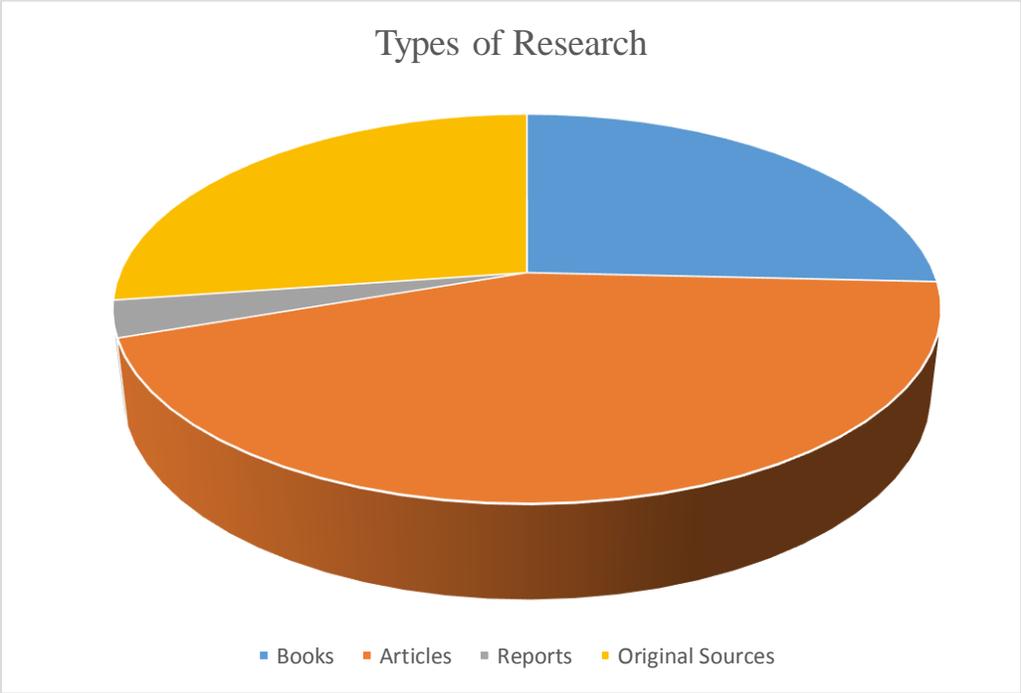
The culmination of all of the research data is organized in Graph 1. Approximately twenty seven percent of the total research was obtained through the special archives collection at PSU. The remaining seventy three percent of the research gathered was obtained using Indiana University Purdue University Indianapolis (IUPUI) search database IUCAT through the search engines PsychINFO, PsycArticles, Google Scholar, and ERIC. The two primary search terms, Viktor Lowenfeld and Lowenfeld, generated fifty two percent of the results obtained through IUPUI IUCAT.

The research obtained at PSU is organized in Graph 2. The research was gathered and organized by topic. The research included original writings and pictures organized into five categories: client artwork, conferences and presentation papers, articles and reprints which included published articles by Lowenfeld and others, charts and signs which were visual aids used by Lowenfeld, and manuscripts and original notes that Lowenfeld used in later publications. The majority of resources obtained at IUPUI were obtained from articles which included about fifty three percent of the findings.

The remaining sources included books with forty percent of the results and dissertations, websites, and memorial statements being the remaining seven percent. This information is organized in graph 3.

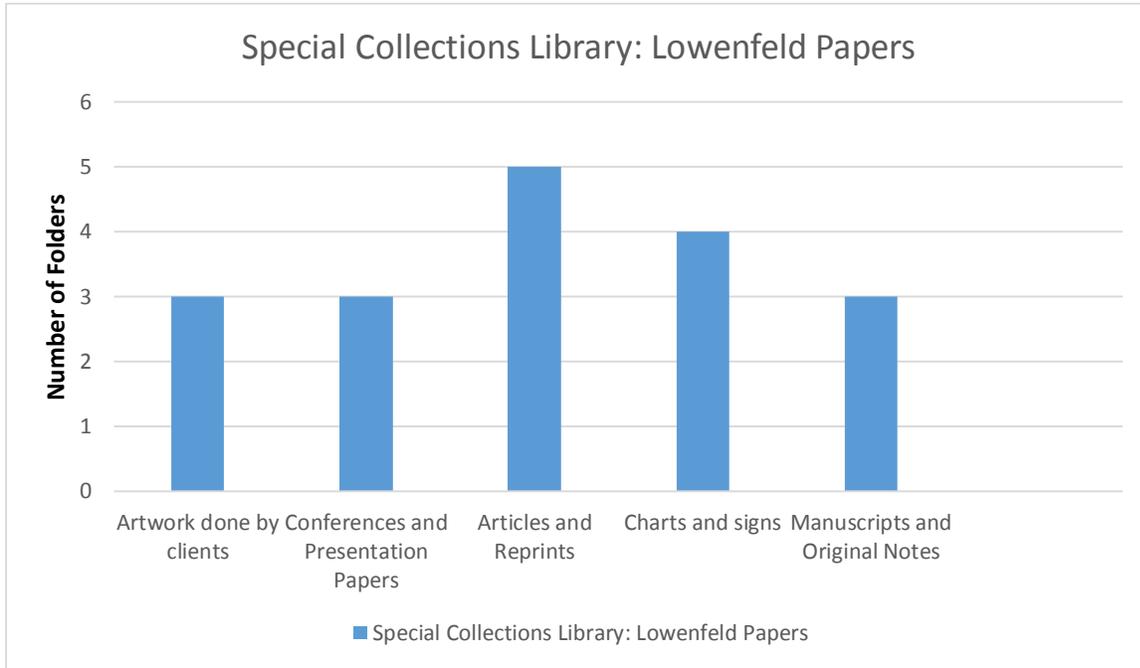
Graph 1

Resources from Indiana University Purdue University Indianapolis and Pennsylvania State Libraries



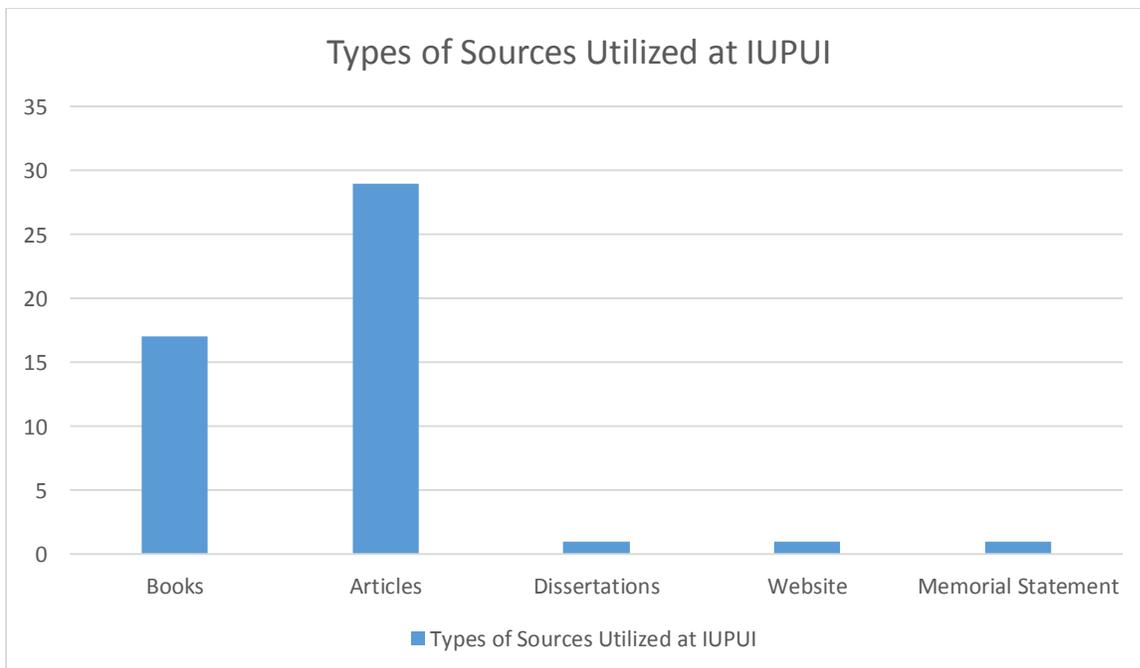
Graph 2

Original Sources from Pennsylvania State Library



Graph 3

Sources from Indiana University Purdue University Libraries



CHAPTER III: LITERATURE REVIEW

Influential Life Events

Numerous factors influenced Viktor Lowenfeld's life and therefore influenced his theoretical development of the artistic stages and subsequently his seminal text. Lowenfeld, born in 1903 in Linz, Austria, was a musical and artistic prodigy (Saunders, 1960). Lowenfeld went to art school at age 13 and at approximately 14 years old, he began teaching art to children as part of a religious youth camp (Saunders, 1960). At age 19, Lowenfeld volunteered with the Institute for the Blind, and began creating clay sculptures with individuals (Michael, 1981). The director of the Institute, Dr. Bürkle, did not know Lowenfeld was volunteering or creating artwork with the blind individuals. When Lowenfeld brought to Dr. Bürkle's attention the abilities of these individuals at the institute, Dr. Bürkle, enraged, condemned Lowenfeld's actions. Although deterred, Lowenfeld worked with blind individuals after completion of junior college at age 21. Finding his work with the blind insightful, he published two books in 1934 devoted to art and the blind: *Entstehung der Plastik (Origin of Plastic)* and *Plastische Arbeiten Blinder (Sculptures of the Blind)* (Lowenfeld, 1958; Michael, 1981; Saunders, 1960). In 1921, Lowenfeld went on to the University of Vienna receiving both a Masters of Arts in Applied Art and a Doctor of Education (Michael, 1981). During this time, Lowenfeld observed Franz Cizek, an influential theorist and educator, and his passion for working within the field of art education was validated. Subsequently, the work of Cizek would later influence Lowenfeld's theoretical development (Lowenfeld, 1958; Saunders, 1960).

The rise of Adolf Hitler, the Nazi regime, and the invasion of Vienna personally and professionally influenced Viktor Lowenfeld. In 1938, Lowenfeld was informed by his publisher that due to the rise of Fascism, it was in his best interest to safeguard his work and not publish it

(Lowenfeld, 1958; Saunders, 1960). This advice was based on an understanding that Jewish intellectual works were being targeted and destroyed (Saunders, 1960). Lowenfeld coordinated with educators in England to assist in protecting his work. Subsequently, during one such visit to England, his work remaining in Austria was destroyed (Lowenfeld, 1958). Upon returning to Vienna, Lowenfeld was informed that he would have three days to evacuate his home, leaving him to decide which artwork to take and which to be left behind. With his remaining collection, Lowenfeld found refuge in England. Eventually, The Institute for the Blind was invaded and all of the records were destroyed. The residents living at the institute were burned during a Nazi invasion.

In England in 1938, Lowenfeld published *The Nature of Creative Activity* and embarked on a new career in England and eventually America (Lowenfeld, 1958; Saunders, 1960). In 1939, Lowenfeld was invited to be a lecturer at Harvard University and during that same year, he was hired at Perkins Institute for the Blind in Massachusetts as an art therapist and a counseling psychologist (Michael, 1981). In 1945, Lowenfeld moved to New York and eventually Virginia to Hampton Institute where he wrote and published *Creative and Mental Growth* (Michael, 1981). Lowenfeld's experiences from Austria and working with American children from New York and/or Pennsylvania provided the basis for Lowenfeld's formation of artistic stages. The documentation does not specify which locations and artwork originated from for his text (Lowenfeld, 1958; Lowenfeld, 1931-1938; Lowenfeld, 1940-1949). Lowenfeld was able to provide a new perspective for art educators and parents in understanding childhood growth and development through art (Lowenfeld, 1947b).

History of art therapy

The art therapy profession emerged from the work of Margaret Naumburg and her sister Florence Cane in the 1940's. Both wrote about concepts that later became known as the field of art therapy. These ideas were developed from Naumburg's work in a Montessori school, psychiatric settings, and she later developed the Walden School (Malchiodi, 2012; Colemann & Farris-Dufrene, 1996). Naumburg developed the idea for a "dynamically orientated art therapy" out of concepts from both Freud and Jung, focusing on the use of the unconscious and symbols in the art process (Malchiodi, 2012). From there other theorists developed their own understanding of art therapy. Edith Kramer who began in therapeutic schools chose to follow Freud's personality theories in her therapeutic approach (Malchiodi, 2012). Kramer in the 1960's and 1970's developed the "art as therapy" approach, which meant that ...art being used as a therapeutic tool utilizing the process of sublimation (Malchiodi, 2012; Colemann & Farris-Dufrene, 1996). In the 1970's, Elinor Ulman wrote about art therapists' contributions to the field, the field of art therapy overall, and the integration of Naumburg and Kramer into a more modern perspective of art therapy (Malchiodi, 2012). Hanna Kwiatkowska, worked in the United States on the development of family art therapy and areas of research in the later 1970's (Malchiodi, 2012).

During this period of growth among Kramer, Ulman, and Kwiatkowska, in 1969, the American Art Therapy association was formed (Colemann & Farris-Dufrene, 1996). In the mid 1980's to the early 1990's, the field of art therapy began to integrate different approaches such as humanistic, behavioral, and family therapy (Malchiodi, 2012). It was not until 1993, with the development of the Art Therapy Credentials Board, that art therapy began regulating credentials and became the modern field as seen today (Coleman & Farris-Dufrene, 1996).

In the mid 1990's, the profession began to integrate more evidence based practice in systematic research, assessment, and evaluation (Malchiodi, 2012). Myra Levick's work gain notoriety during this time, with the development of her assessment, called the Levick Emotional and Cognitive Art Therapy Assessment (LECATA) (AATA, 2014). Levick (2003) later published, *See What I'm Saying What Children Tell Us Through Their Art*, a book which outlined her artistic development stage/sequence design and created normative stages for children's artistic development. Recently, Levick (2012) conducted an evidence based study which provided some support for the LECATA and Levick's stages, offering a more contemporary method of evaluation and treatment that was developed for the field of art therapy.

Influential Theorists to Lowenfeld's Initial Design

In order to fully conceptualize Lowenfeld's theory of artistic development, the theoretical roots must be understood. Lowenfeld initially developed his theory around 1939, in *Creative and Mental Growth*, outlining six key stages of development: the Scribbling Stage, the Pre-Schematic Stage, the Schematic stage, the Gang Age, the Pseudonaturalistic Stage, the Period of Decision (Lowenfeld, c.a. 1940). Each stage included the developmental age of the child, key concepts of artistic development, and ways to stimulate artistic growth at that stage (Lowenfeld, 1957).

Victor Lowenfeld was not the first to develop a theory related to artistic and creative development within the context of childhood development. Numerous art educators previously developed and established well founded theories on art education (Michael & Morris, 1985). The works of William Lambert Brittain, Karl Buhler, Franz Cizek, Sigmund Freud, Friedrich Froebel, and James Sully will be explored to understand the depth of their contributions to Lowenfeld's overall theory in the following section.

William Lambert Brittain. William Lambert Brittain or W. Lambert Brittain was a United States professor at Cornell University, known for teaching Saturday art classes to children at Cornell (Dodge, Ricciuti, & Bayer, 1987). Brittain developed his interest for child development initially as a part of his doctoral thesis and later began writing articles and books on the subject (Dodge, Ricciuti, & Bayer, 1987). Brittan discovered that through interactions with adults, children develop values and were encouraged to interact with their environment (Dodge, Ricciuti, & Bayer, 1987). These adult interactions influenced their artistic expression and the development of “a sensitive, creative, involved, and aware child” (Dodge, Ricciuti, & Bayer, 1987, p. 2). In his doctoral research, Brittain outlined stages of creativity including themes of sensitivity to problems, fluency, flexibility, originality, ability to rearrange, ability to abstract, closure, and junction (a term connecting originality and closure) (Lowenfeld, c.a.1939, pp. 4-12). Brittain obtained his doctorate in art education from Penn State. Lowenfeld was working within the same department around this time (c.a.1939, p.2). Brittain contributed to *Creative and Mental Growth* after Lowenfeld passed away in the fourth through eighth edition (Dodge, Ricciuti, & Bayer, 1987, p. 2). Brittan adapted later editions of *Creative and Mental Growth*, augmenting information, adding his own insight, and including current research references (Saunders, 1983).

Karl Bühler. Karl Bühler, a prominent psychologist and educator from Vienna, worked within the fields of art education and developmental psychology (Michael & Morris, 1985; Brock, 1994). In 1919, Karl Bühler wrote *Die geistige Entwicklung des Kindes [The Mental Development of the Child]*, where he outlined the psychological development of children including: “physical, intellectual, perceptual, imaginative (creative), social, and aesthetic (drawing)” (Michael & Morris, 1985). This included an entire chapter on drawing development.

In this chapter, Bühler noted the scribble as part of the artistic developmental process and the basis for the formation of language. Bühler further noted the developmental progression of an individual's visual perspective in drawing, which he identified as the "front and top view" when a child incorporates both a bird eye view and side view within the same image (p. 109). Through artistic development, Bühler (1985) stated that the individual "discovers the abstract quality of form, which has nothing to do with content" and ultimately "discovers shapes that make up noses, eyes, or other objects" (p. 108). These shapes that create facial features, eventually become the schema. Bühler stated that schemas are the "most characteristic view of an object" or the orthoscopic view (Michael & Morris, 1985 p. 108). The schemas will eventually evolve into and incorporate symbols for "complex expression" (Michael & Morris, 1985 p. 108). Bühler wrote limited amounts on art done by children after the age of 10 years old, only specifying that the realistic aspect of the drawing should be emphasized.

Franz Cizek. Franz Cizek, an Austrian art educator, taught juvenile art classes starting in 1897 and taught for over 41 years (Michael & Morris, 1985 p. 105). Cizek is often referred to as the "father of child art" and "the 'father' of creative art teaching" (Michael & Morris, 1984; Saunders, 1961; Smith, 1980 p. 28). Cizek regarded himself "not as a psychologist, a sociologist, or an educationist but as a creator" (Anderson, 1969, p.30). Cizek never published a book, and information on his teaching style relies on testimonials from former students and parents (Smith, 1980). Michael and Morris (1985) stated, "Cizek offered interested children a respite from the stark routine found in the schools. He introduced an approach that was considerably more free than the one found in public schools, and he encouraged children to draw what they wanted"(p.105). Cizek encouraged art making by engaging his students through provoking questions, providing stories, and observing their work. He would encourage students to move

past challenging situations, and provided solutions to artistic problems. As explained by Wilson, "He did speak to the child as one artist to another. Cizek respected each child through his approach, tone, and direction" (Smith, 1985, p. 31).

Sigmund Freud. Sigmund Freud, a renowned Austrian doctor and researcher, is known as the founder of psychotherapy (Gay, 1989). Freud's theory was "a biologically derived model that stressed the centrality of instinctual process" (McWilliams, 2011, p.23). Freud developed psychosexual stages to explain infancy through adolescent development but it was Freud's writings on the unconscious, the ego, the id, and dreams that appeared to have the greatest influence on Lowenfeld.

Freud saw that individuals are made up of conscious and unconscious processes that dictate behaviors and thoughts of the individual. Freud believed that the unconscious was "latent and capable of becoming conscious at any time" and that the conscious was the active recognition of a thought or idea (Freud, 1923/1962). Both the conscious and unconscious are a dynamic process which influence an individual's external world. In 1923 Freud published, *The Ego and the Id*, specifically focusing on the three psychological components the id, the ego, and the superego (Freud, 1923/1962). These components are the foundation of psychoanalytic theory and practice. Freud described the id as an unconscious process that operates on impulses and pleasure seeking cathexis. Freud perceived the ego as the conscious process managing the id impulses by seeking control and balance over id and superego, and the superego as a conscious process that seeks an unobtainable ideal in relation to the ego (1923/1962). The id, ego, and superego seek balance, both consciously and unconsciously.

Freud also wrote about the unconscious in relation to dreams and images. Freud believed that dreams provided insight into the unconscious process, by allowing the images to speak

unconsciously in dreams (Naumburg, 1966). Through images an individual could describe the dream, drawing what they had an inability to say (Naumburg, 1966, p.2). Freud saw a way for individuals to go beyond words and speak through the image.

Friedrich Froebel. Friedrich Froebel influenced German and American educational systems and theories of education through the development of kindergarten. Froebel's experience of maternal death at an early age and loss of a loving female figure was the basis for his contributions in the development of kindergarten. Froebel's aloof and absent father left him without guidance in his early life, he coupled this experience with philosophies of German Romanticism (Manning, 2005). Froebel developed the term kindergarten from the word *kinder* meaning children and *garten* meaning garden, which would be a place for children to grow and learn (Weston, 2002). He designed kindergarten as a place where children could learn through play and find a sanctuary as this type of curriculum would not be emphasized in later schooling with regimented education (Weston, 2002). In Froebel's kindergarten, education was processed through three main tenants: "...Unity of the creation, respect for children as individuals, and the importance of play in children's education" (Weston, 2002, p.18). Froebel created a space for children to play regardless of their gender, abilities, race, or social standings (Allen, 2006). In this way, he was able to create an environment for children to explore the connection between their internal and external worlds through the process of songs, games, and play (Allen, 2006). Play, as Froebel noted, is the "purest, most spiritual activity of man at this stage" and that it allows for inner issues to find resolution through process that provides pleasure and joy (Manning, 2005). Froebel also emphasized the unique qualities of children, especially during the process of play (Manning, 2005). The important foundation of Froebel's theory is the concept of

play as a form of education that highlights the uniqueness of each individual child (Michael & Morris, 1985).

James Sully. James Sully, an Englishman and philosopher wrote eight books based on both philosophical and psychological concepts. In the fields of genetic psychology, Sully linked developmental and evolutionary psychology to the children's study movement (Valentine, 2001; Block, 1982). Based on his experiences, he wrote about a variety of topics including the physiological and psychological nature of individuals, as well as creating a hybrid of these two concepts (Block, 1982; Sully, 1880; Sully, 1893). For example, Sully's explanation of movement in the primitive aspect of childhood development connected both the physical nature along with the psychological development (Sully, 1893). In his book, *Outlines of Psychology: With Special Reference to the Theory of Education*, Sully outlined the physical sensation and emotional effects that movement can have upon the body (Sully, 1893). Sully explained that the need to understand the developing world around them, children absorb through the exploration of their space.

Sully provided insight into other areas of development such as aesthetic appeal and understanding human nature with relation to art (Sully, 1880). Sully noted that- "all art impresses a certain form on the pleasurable materials of which it makes use" and that the charm of human nature "becomes transformed into a slightly different emotional force when it is taken into the airy region of the imaginative region" (Sully, 1880, p. 284). In other words, materials provide tangible enjoyment and individuals become emotionally engaged through an active imaginative process through the use of materials.

Influential Theorists in Stage Development

The following theorists each developed their own theory of artistic development, and subsequently influenced the work of Viktor Lowenfeld. These theorists include Walter Krotzsch, Siegfried Levinstein, and Georges Luquet. These theorists each have specific contributions to Lowenfeld's artistic stage theory.

Walter Krotzsch. Walter Krotzsch, a German teacher, wrote and observed early art development in children (Michael & Morris, 1985). In 1917, Krotzsch wrote a book, *Rhythm and Form of Free Art Expression of the Child*. He stated that in order to “understand children's artwork it is as important to observe the child in the act of creating as it is to take note of the product rising from the process” (Michael & Morris, 1985, p.107). Krotzsch emphasized the importance of scribbling in artistic development, taking note of the “rhythmic characteristics” as described as three levels or phases within the scribbling stage: unrefined rhythm, refined rhythm, and naming (Michael & Morris, 1985, p.107). As for the naming of scribbles, Krotzsch saw the specific naming of scribbles as influenced by adults rather than original child thought (Michael & Morris, 1985, p. 107). As outlined in Table 3.

	Unrefined rhythm	Refined rhythm	Naming
Elements	Movement	Control	Names to the image and parental satisfaction
Motor Control	Inability	Developing	Developed
Conceptual	Uncontrolled movement	Controlled movement	Connection between movement and the result

Siegfried Levinstein. Siegfried Levinstein, was a turn of the century German historian and child development author who published *Untersuchungen uber das Zeichnen des Kindes bis*

zum 14. Lebensjahre [Inquiries About the Drawing of Children Until the Fourteenth Year of Age] (Michael & Morris, 1985). His book was based on the collection of over 5,000 children's drawings (Michael & Morris, 1985). Levinstein showed interest in the way the child depicted self in their drawings, especially the child's ability to express representations of styles, moods, and appearance (Mattil, 1972, p.5). Levinstein's differing perspective on the creation of art included the self as the "highest form of art" (Mattil, 1972 p.5). Levinstein developed three stages of drawing development where each encompassed the visual qualities of childhood art. In the initial stage, the image is fragmented and there is little to no connection visually or mentally (Michael & Morris, 1985, p. 106). The second stage focused on sharing a story through the artwork (Michael & Morris, 1985). The third and final stage, "Stimmungsbilder or mood picture... contained qualities of mood, expression, individual interpretation, and self-reflection on the part of the creator" (Michael as cited by Michael & Morris 1985 p. 106). In this final stage, Levinstein noted a change from the previous two stages where individuals varied their images to express either the environment or their own persona (Michael & Morris, 1985). See Table 4.

	stage one	stage two	stage three
Emotional Development	Limited	Connected to the story not the image	Mood expression throughout
Human Figure development	No ability	Inclusion through story	Inclusion throughout and well developed
Motor Control	Limited	Defined	Well defined
Conceptual	Fragmented ideas as seen in the scribble	Story through the image	Images of the environment or their persona

Georges Luquet. Georges Henri Luquet, a French developmental psychologist known for his publication *Le Dessin Infantin [Children's Drawings]* originally published in 1927 (Luquet, 2001). By conducting an in depth analysis on children's drawings, Luquet was able to

provide insight into childhood development. Luquet believed that children create images for enjoyment, with no method, and children create through preference or otherwise they do not create. In addition, Luquet observed that the inspiration behind image creation was driven by observations of objects, or how ideas related to those objects adapted the focus of the drawing (p.13).

Luquet established four transitional drawing stages: fortuitous realism, failed realism, intellectual realism, and graphic narration (Luquet, 2001). Uniquely these stages address the concept of realism within art making as being individually and environmentally driven.

“Anything is real that is real at the time it is created to whosoever creates it.” (Michael & Morris, 1985 p.108). In the first stage, fortuitous realism, children make initial marks with no intent behind their creation and choose rather to satisfy the emotions that accompany this creation and repeat the process (Luquet, 2001). In the next stage, failed realism, children do not have the physical control to produce wanted results and are unable to make an image as it appears in the world. In Luquet's third stage, intellectual realism, the main focus is the choice to not focus on drawing reality, but rather the internal model or working model for how the external world operates and the important details. In Luquet's final stage, the graphic narration stage, an individual develops a sense of narration, telling a story in symbolic form through the image. This is done successfully when an individual uses details from multiple time frames within the same image (p.138). See Table 5.

Table 5. Key Elements of Luquet's stage development				
	fortuitous realism	failed realism	intellectual realism	graphic narration
Emotional Development	Enjoyment of the process	Satisfaction through control	Mood included in images	Connection to symbols and images
Motor Control	Not developed	Learned control of movements	Complete control	Complete control

Conceptual	Scribbling with no complete thought to the process	Making connections through the art limited insight into page orientation	Inclusion of images for the world around them	Development of the story and thought process through artwork
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Creative and Mental Growth

Lowenfeld's most prominent work *Creative and Mental Growth*, was first published in 1947 and has been succeeded by eight editions. This text was unique in its ability to clearly and succinctly outline six stages of development that both adults and art educators could utilize in understanding artistic development in children (Lowenfeld, 1947a). Lowenfeld highlighted the salient developmental milestones which allowed adults the ability to gain a greater understanding of the importance that artwork holds in the life of a child (Lowenfeld, 1947b). Lowenfeld appeared to gather artwork from Austrian and American children ranging in age from 2 to 18, although it has been difficult to ascertain the location of artwork gathered in his documentation (Lowenfeld, 1931-1948; Lowenfeld, 1940-1949). Lowenfeld (1947b) organized each stage noting physical, social, physiological, and emotional experiences that would be typical, with an understanding that the process of art making is more important than the result of the artistic process. After the initial draft, seven more editions were published, five of which were published after Lowenfeld's death (Saunders, 1983). Brittain continued to publish Lowenfeld's stages and contributed to the fourth through eighth edition.

Lowenfeld's Initial Design (Edition 3) (Lowenfeld, 1957).

Since the original publication of *Creative and Mental Growth* in 1938, the subsequent editions have included adaptations to the original text and design. A shift occurred after the publication of the third edition in 1960 and the death of Lowenfeld. Brittain continued to publish

editions building upon Lowenfeld's original concepts with an integration of contemporary information (Saunders, 1983). According to Saunders (1983), the original intent of the text remains intact but these augmentations demonstrate a divergence from the original text. The differences in text will be explored later in the literature review. The Third Edition will be used as a basis for the original text as this was the earliest text that could be obtained. All information referred to subsequently for about each original stage was obtained from Lowenfeld's 1957 edition and is cited at the title of this section.

In each chapter, Lowenfeld included an evaluative chart that outlined 7 different areas of growth: intellectual, emotional, social, perceptual, physical, aesthetic and creative (pp. 96-104). Lowenfeld stated "that the results obtained by the evaluation chart are only indicative of the child's present status and do in no way predict the child's future growth" (p.97). Lowenfeld also included a rating guide for each chart based on each developmental stage.

The Beginning of Self-Expression: The Scribble Stage

The scribble stage begins at age two and ends around age four, this stage is controlled by mark making on the page, resulting in kinesthetic satisfaction. Scribbles develop through this identified order: "disorderly scribbling or without differentiation", "controlled or longitudinal scribbling", "circular scribbling", and "naming of scribbling" (pp.87-90). Due to a lack of motor control at this stage, any attempt to control this task with realistic representations would result in the child being dissatisfied and frustrated.

In disorganized scribbling, there is a connection between the marks on the page and the physical movement the child uses to create the scribble. The child builds upon the repetition of movement in this stage, gains confidence, and increases mastery to proceed to the longitudinal or controlled scribbling stage. In the third stage, circular scribbling, the child uses their whole arm

to create, which is identified as a more complex process. The final scribbling stage, naming of scribbling, occurs when the child begins to add names and stories to describe the images. This is an important shift during this stage because the thought process has “changed from a kinesthetic thinking in terms of motions, to an imaginative thinking in terms of the pictures” (p. 90).

According to Lowenfeld, this direction of thinking “should be stimulated... the purpose here is more the encouragement of the new imaginative thinking than the stimulation to draw recognizable objects” (p.93). Color is not important at this stage and teaching accurate color use would cause the child frustration.

The materials and techniques used should “encourage free expression without intruding technical difficulties” (pp. 93-94). Wax crayons and finger paints support larger motions and allow for freedom to create in a fluid kinesthetic process. Finger paints are especially beneficial as a “stimulant for maladjusted children whose emotions need strong means of stimulation” (p.94). Watercolor and sharp pencils are unsuitable as they restrict children from the freedom of movement and restrict the ability to create distinguishable marks. As for 3-dimensional materials, Lowenfeld identified that clay was beneficial for its kinesthetic properties allowing for pounding without reason. The process of manipulating clay, will mirror the developmental stages in drawing.

The first representational attempts: The pre-schematic stage

The next stage of artistic growth and development, from age four through age seven, is achieved when children are able to establish a greater relationship to the outside world around them. Based on the development in the previous scribble stage, the child has learned to develop representations based on a longitudinal and circular marking making process. This process is the foundation for the development of the human form/schema. At this developmental stage, an

understanding of forms and symbols is fluid so multiple symbols may have the same meaning. Once schemas are established, the symbolic connection become more formalized. The greatest satisfaction during this stage is the ability to connect their schematic representations to the logical and emotional self.

The initial connection from the child's internal world to their external environment is important. At this stage children realize the importance of their external world, and children are not just ego driven but demonstrate an interest outside of self (p.126). The schema develops out of an initial understanding of the body and early representations of self. As a result the body "expresses the psychological constitution of the child." (p.112).The drive to establish a connection between self, objects, and objects in relation to one another is the driving force behind schematic development.

Lowenfeld identified the concept of active knowledge at this stage: "the knowledge which the child has, but does not use" (p.110). He believed that children demonstrated this knowledge by graphically representing what is most important or what most motivates them. Lowenfeld also described how the passive knowledge can influence a child's understanding and eventual development of a drawing similar to an inactive schema that is always being added to whether it is being used or not. Passive knowledge is in this way is an internal working model that a child can utilize for connections between concepts that may be important later in life.

Children in the pre-schematic stage are typically connected to their internal emotional responses. Lowenfeld theorized that the initial ways in which children understand the spatial relationship are through emotions (p.115). This is demonstrated by exaggerated objects, repetition of patterns within drawings, and the identification of important aspects within drawings. The relationship with color at this stage is more purely based on emotions and the

amount of emotional investment rather than on realistic rendering of images. To allow for the emotional connection, Lowenfeld suggests the use of larger brushes and poster paints, as well as large surface areas- to paint on and absorbent paper. In addition, the manipulation of clay can support the “constant change of modes of representations” at this stage (p.121).

The achievement of a form concept: The schematic stage

From ages seven through nine, the schema is developed by the child using previous experiences to understand and render the world around them (p. 133). The schema is not a fixed concept but rather it is a fluid and flexible process that incorporates the child's experiences and emotional responses through creativity. This is most commonly seen in the development of the human schema where it is derived from “both the bodily and the mental constitution” and is achieved through repetition of the image (p. 133). The schema as a visual representation is separate from the cognitive process as seen in other stages or other theories because the child is learning from images rather than separate experiences. As a result, children will create images not in an attempt to recreate the image exactly but will choose to create an image in an attempt to emphasize the significance of the visual image and their attempt to understand the image.

Through the development of the schema, a child begins to cultivate spatial awareness through experiences with the environment and the organization of the space around them. This relation to the environment is achieved visually through the development of a baseline, the visual symbol of the ground. During this stage the child's emotional desire to incorporate the whole environment in the image results in an augmented baseline. Due to this a child may also attempt to include multiple perspectives mixing both plane and elevation in one drawing. Children during the schematic phase may attempt to include multiple aspects of time in one drawing and this is

indicative of emotional investment taking priority over the realistic rendering of the drawing (p.151).

One common depiction during this stage is an x-ray drawing. X-ray drawings depict “the inside and outside simultaneously whenever the inside is emotionally, for the child, of more significance than the outside” (p.153). A child at this stage understands that figures and objects cannot be seen through but rather that what is occurring internally must be fused with the external image in order to emphasize the emotional importance of the image.

The meaning of color changes during the schematic stage. In the schematic stage, the child identifies the relationship between color and object (p.157). Children find satisfaction in using colors that are consistent with their schema and their experiences. In this way, each child “has his own highly individualized color relationships based upon very fundamental first experiences,” ultimately creating his own color schema (p.159).

Due to the development of artistic self-expression, teachers should not evaluate art based on formal aspects as the result would be “the very death of any free creative teaching” (p. 159). Instead teachers should support the process, including repetition for mastery. The atmosphere for art education should be one in which “the child’s consciousness of being part of environment is stimulated” (p.164). Lowenfeld suggests that for increased spatial awareness, children should “work on the floor or on desks, on which the drawing can be approached from all directions” (p. 148). This allows children to understand the significance of their visual space by changing the actual space and emphasizing the significance of their physical space.

The dawning realism: The gang age

The gang age from ages nine through age 11, is when children realize their own social independence and alignment with peers, develop social groups, become independent from

authority, and increase self-esteem (p.183). Visual development and attempts at realism are not defined as photo-realism but rather an attempt to represent reality, integrating concepts like motion, distance, light and atmosphere (p.192). During this phase, “the child no longer uses exaggerations, neglect, or omissions as frequently as a means of expression of emotions,” (p.187). Children develop greater awareness of details, although figures tend to be stiff and motionless.

At this stage, a child begins to develop an increased awareness of their environment. Overlapping is used because “it is a part of the growing spatial concept that leads to the representation of three dimensional space” (p.189). Confidence is enhanced through this awareness of increased ability to create detailed objects within a drawing. Supporting the drive to develop spatial awareness in creative work will improve the child’s social behavior and growing ego. This stage is marked by the awareness of sexual development and the inclusion of gender specific features within the human schema. In addition, the use of color demonstrates an established relationship between colors and objects. The scale and complexity of color continues to be subjective and emotionally charged. (p. 192).

Modeling in three dimensional materials like traditional clay, modeling clay, or plasticine “serves as a means of self-expression” (p.197). Lowenfeld suggested two methods for teaching: the “subjective method of cooperation” through representations of cooperation, and the “objective method of cooperation” through the process of group work (p.199). The children are able to either explore topics related to cooperation or that children are put into cooperative groups with topics focused on key concepts of development.

During the dawning realism stage, parents may experience opposition to the traditional supervision of their children although guidance during this stage of independence is imperative.

Lowenfeld believed that if parents identified more with their children's needs and the importance of cooperation and citizenship there would be less delinquency (p.183).

The pseudorealistic stage: The stage of reasoning.

This stage of artistic development starting at age 11 and ending around age 13 emphasized the final product. It is a time of transition, shifting from childhood to adulthood where children prepare for the crisis of adolescence. Individuals during this stage must travel through this undecided period and become prepared for the transition into adolescence and later adulthood.

In the pseudorealistic stage, there are two ways children utilize creativity: visually and non-visually minded. Visually minded creativity focuses on the accurate perception of images through an outside subjective experience (pp.218-219). Non-visually minded focuses on the internal emotional investment and representations (pp.218-219). Both perspectives are essential to the growth and development of the child as they are utilized to explore different experiences.

For the visually minded, human figures include a greater focus on the details within the drawing such as wrinkles and shadows, in addition to the representation of space and changes within the environment depiction. Visually minded individuals create images that operate on the formalities of aesthetic function including formal elements such as balance and rhythm. Visual depictions include details of changing effects on color making and choosing colors that are realistic. These children will note the changes in light and shadow and make stronger connections based on observation (pp. 220-227).

For a child who is non-visually minded there is more development in emotional awareness, choosing to represent space as more of a relation in body-self where the depiction is part of the experiences rather than an observation. Their focus is on observations and varying

features of emotional expression. Their preference is to work directly using materials to create emotional abstractions. Children who are non-visually minded will make changes based on the impressions and the emotional reactions to colors incorporating the personification of color or “seeing and dealing with color as if it were a living being” (p.239). This means that the use of color is based both on the atmosphere and the emotional connection to that which is being depicted.

At this stage, however, children from both creative experiences share certain qualities. As a child develops through this stage their depictions of the human figure become more detailed with sensitivity to figure proportions. Both individuals at this stage show an appropriate understanding of spatial awareness and correct color use with the ability to understand personification of color and realistic color expectations. There may be recognizable shifts between the two extremes of color use although color will most consistently be used as they are most comfortable. In both cases, it is essential to stimulate the child's way of thinking and to avoid frustration due to a lack of comprehension of the experience (pp.219-220).

Lowenfeld noted that the use of materials is imperative, specifically watercolor and clay. Watercolor allows for realistic depictions while having colors run together to creates ‘happy accidents’ and an organic feel. Clay can be used in sculpting and modeling. Modeling supports an unconscious approach, while sculpting supports a conscious approach. The main emphasis with clay is the ability to transition from modeling to sculpting smoothly and allowing for adjustment. Again there is an emphasis on the importance of a gradual shift in developmental level and that this shift of awareness can occur through creative activity.

The period of decision: Adolescent art

During this stage of adolescence, from age 14 through 18, a changing identity causes major crisis and there is a need to develop a sense of self. This crisis is described as “the time the body needs to adapt itself” (p.256). The challenge that lies within this stage is the physical and psychological transition from youth to adulthood. Individuals are more successful in this change when this transition is smooth. This is not a simple task. The purpose of the overall artistic development at this stage, is furthering the realistic representations and the increased awareness of the environment. In addition, there is a “conscious critical awareness” that “dominates the creative production of the postadolescent individual” (p.261). Unlike before where the individuals saw themselves as children, unconscious of their art process, adolescents are more consciously aware, which affects their self- confidence. Because of their critical awareness, adolescents often withdraw and become critical of their artwork. When approaching artistic tasks with adolescents, it is important to engage them as developing adults and not as children.

Adolescent subject matters should center on two factors, the wants of the teen in relation to society, and the use of art as a method of expression. Materials that acknowledge the emerging adult are charcoal, tempera paint, oil paint, functional design (jewelry and furniture) ; and using methods such as sketching, casting, murals, easel painting, silk-screen, etching, lithography, and “poster work-lettering” (pp.338-388). There is no evaluation chart at this stage because Lowenfeld believed that the focus should be on the unconscious process of “free creative expression”.

Brittain's Adaptations (Edition 5)

Lowenfeld's passing after the third edition's publication in 1960 marked a shift in the original content of *Creative and Mental Growth* (Saunders, 1983). Starting with the fourth

edition, Brittain began publishing and implementing his own concepts in *Creative and Mental Growth*; by the fifth edition sections had been removed and revised (Saunders, 1983). The major changes in the developmental stages therefore need to be included in this paper to understand how Lowenfeld's work has changed and how his work is understood through current editions. Although the major themes are consistent, overall changes include the removal of the evaluation charts for the stages, a shift in writing style, revision of images, and a variation in information for the final two stages.

Writing style changes. Between the third and fifth edition of *Creative and Mental Growth* there was a shift in language being used within each stage. The change in the style can be best seen in the beginning of the schematic chapter where the stage is being described. In the third edition the chapter begins with describing the stage as "The meaning of the schema can only be fully realized when we understand the child's longing, after a long search, for a definite concept of man and environment" (Lowenfeld, 1957, p. 132). The fifth edition has the same overarching theme but chooses a more simple approach. In the fifth edition, the chapter starts with, "After much experimentation the young child arrives at a definite concept of man and his environment" (Lowenfeld & Brittain, 1970, p.145). Although the overall themes remain the same throughout each stage there is a shift in the language to accommodate changes in the intended audience (Saunders, 1983).

Evaluation chart removal. Included in the third edition of Lowenfeld's *Creative and Mental Growth* (1957) is an evaluation chart for five of the six stages including the scribbling stage, the pre-schematic stage, the schematic stage, the gang age, and the pseudo naturalistic stage. Each chart includes an evaluation for intellectual, emotional, social, perceptual, physical, aesthetic, and creative growth (Lowenfeld, 1957). An important aspect of each stage is the

inclusion of a place to mark none, some, or much to indicate if stage specific components have been met (Lowenfeld, 1957). An example of the evaluation chart is available, see Appendix B. Criteria is provided for proper evaluation of each stage in the third edition after the inclusion of each chart (1957). Brittain later removed the charts in an attempt to coincide with Lowenfeld's theories on the need to decrease standardized evaluation practices within school (Saunders, 1983). Brittain believed that "there should be one place in the school system where marks do not count" (Saunders 1983, p.140). These charts were not replaced in later editions.

Therapeutic aspect changes. One major augmentation that occurred was the removal of the chapter on therapeutic aspects that Lowenfeld included in the original third edition. In the third edition, Lowenfeld (1957) devoted an entire chapter to the therapeutic aspect within the field of art education. Lowenfeld included this chapter in an understanding that there is a therapeutic and emotional connection during the artistic process (1957). Brittain did not choose to include this chapter in future editions, based on the desire to create a separate text for this material, which never came to fruition (Saunders, 1983). Saunders believed that the third edition of *Creative and Mental Growth*, holds more value than future editions for art therapists based on the inclusion of this chapter alone.

Artwork replaced. The original artwork of the third edition that Lowenfeld obtained was replaced in future editions. Of the original images used in the third edition, only half were used in the fifth edition (Lowenfeld, 1957; Lowenfeld & Brittain, 1970). Images in the fifth edition included images of both artwork and children creating the artwork whereas the third edition only included images of the artwork itself (Lowenfeld, 1957; Lowenfeld & Brittain, 1970). According to Saunders (1983), Brittain changed the included images to reflect the changing times and the

changing use of art materials. The fifth edition includes images done with crayons as well as markers as opposed to original paintings (Lowenfeld & Brittain, 1970).

Deviation in the final two stages. The final two stages, the pseudorealistic stage and the adolescent art stage, show significant adaptations in the fifth edition as compared to the third edition. In the pseudorealistic stage, Lowenfeld (1957) included two types of creativity seen in individuals based on the ability to utilize creativity through either internal emotional connections or external connections. Brittain did not include this in the fifth edition, instead the overarching theme of this stage blends all individual aspects of creativity, making the different types of creativity in individuals at this stage, no longer separate from each other (Lowenfeld & Brittain, 1970). In the final stage, Lowenfeld (1957) built upon the previous stage of development and noted the nuances in both aspects of creativity. Brittain does not include this in the final stage summarizing that artistic abilities improve at this stage (Lowenfeld & Brittain, 1970). Brittain also chose to include photography and cartooning into these later stages that Lowenfeld had not (Saunders, 1983). The remainder of the chapter remains consistent in both editions, marking the major themes at each stage (Lowenfeld, 1957; Lowenfeld & Brittain, 1970).

Scope of theoretical framework

One can surmise that Lowenfeld has been associated with the field of art therapy since the emergence in the 1940's. Lowenfeld was even hired as an art therapist in 1939, by the Perkins institute for the blind (Michael, 1981). Unlike the current understanding of the qualifications of an art therapist, the profession was not as well defined at this time. Lowenfeld's unique work with the blind may have been the precipitous for his employment as an art therapist.

Lowenfeld continues to be linked to the field of art therapy through the development and use of assessments and in turn and treatment planning. Although theorists and researchers

support his work, there is also criticism of his theories. In order to properly evaluate Lowenfeld's theories, both sides must be acknowledged and critically analyzed. Bridging the past to the present helps reveal how Lowenfeld fits current trends in art therapy.

Support of Lowenfeld's work. The following literary publications utilize Lowenfeld, Brittain, and/or *Creative and Mental Growth* within case examples. These references demonstrate the scope of Lowenfeld's theory and the support that Lowenfeld provided for other theorists work and research.

In the article "Re-Thinking Lowenfeld", Unsworth (1992) believed that the crisis of art education related to a deeper focus on "factual mastery and testing" and this could be solved by looking at Lowenfeld's theory on creativity, creative development, and aesthetics. Unsworth (1992) used Lowenfeld to support his theory of interdisciplinary learning with the arts being central in the educational foundation. "Integrated learning does not happen by merely shuffling subject matter around-such integration can take place only within a child," (Lowenfeld and Brittain as cited by Unsworth, 1992, p. 68)

Recent publications, such as *Early Development of Body Representations*, integrate developmental concepts with those of biological and perceptual drawing development of the human figure (Cox, 2012). Individual stages are not used but rather a flow in increasing complexity from scribbling, to tadpole drawings, to segmented figures, to conventional figures and finally visual realism of figures (2012). These stages appear to coincide with the scribble stage, the pre-schematic stage, the schematic stage and the gang age with regards to the development of the human figure (Lowenfeld, 1957; Cox, 2012). Brittain is included in association with another theorist on the topic of a preschooler's ability to name body parts. Even

though the ages coincide with those in *Creative and Mental Growth*, only the conceptual connection can be logically inferred based on the overlap of relevant information.

More specific examples directly relate to Lowenfeld's concepts of artistic development and its use in art education and art therapy. Lowenfeld's theories are important in understanding adult and child development, specifically developmental art therapy (Malchiodi, 2012).

According to Malchiodi (2012), Lowenfeld's work helped to provide an "excellent framework for application of the principles of art therapy and art education to children in both therapy and the classroom" (p. 115). Developmental art therapy is commonly used with adults and children in developing cognitive abilities, recognizing developmental abilities, and treating emotional and physical disabilities (Malchiodi, 2012). Developmental art therapy helps children who are not within the emotional and physical average by allowing a space to work on gross motor skills. This type of therapy provides a "method of evaluation... a framework for identifying treatment goals and objectives based on the foundation of normative artistic expression and brain development" (128). This means that concepts used in developmental art therapy can be used effectively in other forms of art therapy.

Case examples help provide additional support to Lowenfeld's theories on development. Russell (1979) studied intelligence in comparison to a child's relative drawing stage as determined by Lowenfeld's and Brittain's 4th edition of *Creative and Mental Growth*. Russell (1979) administered Wechsler Intelligence Scale for Children (WISC), Wechsler Preschool and Primary Scale of Intelligence (WPPSI), Peabody Picture Vocabulary Test, or Stanford-Binet Intelligence Scale to measure the intelligence of 43 intellectually disabled children. Findings indicated that artwork was beneficial in being able to measure intelligence when traditional

methods presented too many challenges (1979). This is another instance when Lowenfeld's work was found beneficial.

This was not the only connection that researchers made to Lowenfeld's work in understanding cognitive development. Hale (1996) looked at the relationship between drawings and cognition through Lowenfeld's developmental stages and the child's chronological age. He observed that there was a connection between drawing abilities, creative developmental level, and cognitive ability (Hale, 1996). Importantly this study noted that young children have difficulties in verbal expression and artwork could demonstrate intelligence prior to writing abilities (Hale, 1996). Children who had the ability to create more artwork would increase their awareness, and ultimately increased intelligence (Hale, 1996).

Deaver (2009) built upon Lowenfeld's work by conducting a study where she collected 467 human figure drawings from children from second through fourth grade. She measured the results using the Formal Elements Art Therapy Scale (FEATS). This study attempted to create a current normative average to compare the results with Lowenfeld's stages. An important finding of the study showed that Lowenfeld's theories were supported (Deaver, 2009). Deaver (2009) also emphasized the need to create a national art therapy database in order to establish normative database for children's drawings. This study provides contemporary support of Lowenfeld's theories on childhood development.

Michael (1986) analyzed Lowenfeld's theories and insight into childhood artistic development and noted key factors that cause a negative influence on Lowenfeld's theory. Michael believed that Lowenfeld acknowledged the importance of environment on the child which critics failed to recognize. According to Michael, much criticism in the field of art education is over the lack of perceived methodology in Lowenfeld's developmental artistic

stages. Michael (1986) noted that the redeeming factor of Lowenfeld's stages was the inclusion of evaluation charts to help provide a method for consistent, measurable evaluation for each stage. According to Michael, Lowenfeld believed that his main contribution to the art education field was a methodology. Lowenfeld believed that the evaluation charts provide information on where the child is developmentally but the real goal of each stage should pertain to where the child should be performing both academically and socially.

Alter-Muri and Vazzano (2014) conducted a cross cultural study that found support for Lowenfeld's developmental artistic stages. The study analyzed artwork by children between the ages of six to 12 from 13 countries across the globe in an attempt to understand gender differences in across cultures. The study found that Lowenfeld's work was able to provide support for gender typical in artwork at different stages of development (Alter-Muri & Vazzano, 2014). Although finding Lowenfeld applicable to age specific groups and artistic development, there was a question on the universality of his stages, suggesting that future studies look into developing "a stage theory of art development more appropriate to children in this century and the international modern society" (2014, p.161). The researchers overall believed that looking into creating a normative base would provide more information on normative children's artwork and understanding normative childhood development which they saw lacking in the art therapy profession.

Projective Assessments

The American Art Therapy Association emphasizes the importance of assessment and evaluation as a part of educational standards (Kaiser & Deaver, 2013). Lowenfeld's theories are commonly connected to the Levick Emotional and Cognitive Art Therapy Assessment (LECATA) (Levick, 2012), although there is no direct citation to Lowenfeld's work. The

LECATA, developed by Myra Levick, is a formal art therapy assessment used to evaluate and assess childhood and adolescent development (Levick, 2003). The LECATA is a series of five drawings to assess emotional and cognitive development utilizing six tasks: “a free drawing and a story; a picture of yourself as you are now; a scribble and something made from the scribble; place you would like to be (ages three through five years); a place that is important (ages six years and up); and a drawing of your family” (Levick, n.d). In *See What I'm Saying: What Children Tell Us Through Their Art* (2003), Levick outlines her developmental stages, which correlate with the concepts used by Lowenfeld in *Creative and Mental Growth*. Levick, identifies her stages as “stage/ sequence” to emphasize that childhood development is fluid, and where the child is always practicing and perfecting. In a 2009 study, Levick continued to provide evidence based support for her work. She conducted a study with 11 other art therapists in order to provide a normative base of children from ages 5 through 12 and found that the LECATA was able to provide accurate information on assessing normative emotional and cognitive levels, citing Freud and other theorists to provide additional support (Levick, 2012). Levick does not cite Lowenfeld but again there are conceptual overlaps

Lowenfeld's work has also been linked to different assessments including the Person Picking an Apple from a Tree (PPAT) and the Bridge Drawing Assessment and the use of the Formal Elements of Art Therapy Scale (FEATS) (Betts, 2013; Gantt, 2009). The FEATS is “a measurement system for applying numbers to global variables in two-dimensional art (drawing and painting)” which utilizes 14 scales in order to assess an image and its elements (Gantt, 2009 p.124). Assessments such as the Person Picking an Apple from a Tree and the Bridge Drawing Assessment utilize the FEATS to create a structured system for effectively evaluating elements such as line, color, energy, logic, realism, developmental level, and perseveration (Betts, 2013).

Lowenfeld's stages are used as the criteria for the developmental level within the FEATS. One can assume that assessments that utilize the FEATS are connected to Lowenfeld's work in *Creative and Mental Growth*.

Robins, Blatt, & Ford (1991) conducted a study with 32 adolescent and adult inpatient and outpatient individuals with emotional disturbances where they were administered the Human Figure Drawing (HFD) assessment. The HFD was given twice to assess improvement of symptomology based on therapeutic intervention during hospitalization. Lowenfeld's *Creative and Mental Growth* helped provide support for the understanding of developmental levels in children and later adults in this study. Robins, Blast, & Ford (1991) cited Lowenfeld as stating "there is a consistency between child and adult performance on HFDs, and that early stages lay groundwork for later stages"(p. 482). Lowenfeld provided insight into childhood development and the HFD and helped to provide support for their findings.

Criticisms

Lowenfeld's theories not only contribute to the field of art therapy but they also provide research for other theorists. His theories have been heavily criticized and supported by numerous researchers. Levick (2003) used stage/ sequence because the term stage alone does not demonstrate the fluidity of childhood development. One may deduce that Levick not citing Lowenfeld's theoretical development as a reference in her assessment development demonstrates a lack of support of Lowenfeld's work. In Willats (2005) *Making Sense of Children's Drawings*, the author acknowledged the work of Bülher and Luquet, who also contributed to Lowenfeld's theoretical development. Despite the similarities to Lowenfeld's theory, Willats chose to organize each visual element of development separately. Each element is not connected in a clear consistent stage theory design like the work of Lowenfeld in *Creative and Mental Growth*.

Smith (1980) in his article, "Development and Creativity in American Art Education: A Critique" notes the flaws in Lowenfeld's theories based on his development and concepts of creativity. Specifically, Smith believes that the developmental aspect of the stages lacked an acknowledgement from the outside environment on the child themselves and as a result the child's artistic creation. Smith challenges the application of Lowenfeld's theories to art education noting that there is a lack of support in real world applicability.

CHAPTER IV: RESULTS

Viktor Lowenfeld made great theoretical contributions to the fields of art therapy and art education. Lowenfeld was able to outline six stages in his book, *Creative and Mental Growth*, which, in 1947, helped to establish a stage theory that could be utilized in a wide variety of settings. As a theorist Lowenfeld appeared to obtain a majority of his information from other theorists and observations within the field. The ways in which each theorist specifically shaped Lowenfeld's theories can be seen in Table 6.

EXAMINING LOWENFELD'S THEORIES

Table 6

Chart comparing theorists to Lowenfeld's stages of artistic development

Theorist	Theorist contribution	Scribble	Pre-Schematic	Schematic	Dawning Realism or Gang Age	The Age of Reason	Period of Decision
Brittain	Contributed to <i>Creative and Mental Growth</i> after the 3 rd edition	Synthesized stage; Created simplified titles for each of the scribble stages	Synthesized the stages and vocabulary used	Synthesized the stages and vocabulary used	Synthesized the stages and vocabulary used	Removed sections related to two types of creativity development	Removed sections related to the two types of development; Simplified the two chapters into one
Bülher	Wrote about many aspects of child growth: physical, intellectual, perceptual, imaginative (creative), social, and aesthetic (drawing).	Development of the scribble	Connected to the development of physical features of a child's drawing	Development of schemas through drawing; X-ray drawings			
Cizek	Developed and created classes related to artistic development					Unique independence needed for children to develop	
Freud	Wrote about the psychological development on id, ego, and superego; Wrote about dreams and artistic expression	Id- or primitive drives Superego-morals and values	Superego continued Ego- controls the chaos				

EXAMINING LOWENFELD'S THEORIES

Froebel	Created kindergarten; Provided the foundation for future stage development	Children play and create through play					
Krotzsch	Developed stage theories related to scribble development	Scribbling stages- unrefined rhythm, refined rhythm, and naming (adults influence in naming)					
Levinstein	Developed a three stage theory of artistic development that focused on emotional growth as well as ability	Stage one- Unconnected fragmented ideas as seen in scribbles		Stage two- Sharing story through the artwork	Stage three- sharing the mood and self-expression through art		
Luquet	The 4 stage process	Stage one- fortuitous realism- more focused on mark making	Stage two- failed realism- learn to control movement	Stage two continued... unable to make an image as it is in the actual world ; Image based relative position	Stage three- intellectual realism- details in both the world around them; Detail in mood	Stage four- graphic narration stage- develop a sense of story through images and symbolic form	
Sully	Discussed the physical and the psychological aspects of early age art and play	Create through scribble and play; kinesthetic movement					

Brittain synthesized Lowenfeld's stages found in *Creative and Mental Growth* into the stages that are currently used (Dodge, Ricciuti, & Bayer, 1987). He also continued to develop these theories and integrated them into Lowenfeld's work. These contributions appeared to be an attempt to update Lowenfeld's stages overall to fit modern changes. Bülher's addition to Lowenfeld's work was the development of child growth: physical, intellectual, perceptual, imaginative (creative), social, and aesthetic (drawing) which Lowenfeld includes overall in his stage development. Bülher writings appears to be similar to the scribble stage, pre-schematic stage, and schematic stage in his discussion on scribbling, development of physical features of a child's drawing of the human figure, and the inclusion of concepts similar to schematic development and X-ray drawings (Michael & Morris, 1985). Cizek's theories provided input to the overall artistic development of individuals which Lowenfeld included in the age of reason stage. Lowenfeld was also influenced by Freud's theories on the id, ego, and superego along with dream development. The id relates to the scribble stage and internal satisfaction. The superego connects to the way in which children in the scribble stage begin developing their external expectations of their art product. The ego can be seen as developed in the pre-schematic where the child is finding balance between the superego and the id and creation of a more structured image (Freud, 1923/1962; Lowenfeld, 1957).

Froebel's primary contribution appears to be towards conceptual development noting the importance play in regards to the process of creation. Lowenfeld (1957) included this in the way he discusses art creation as a process of play. Krotzsch appeared in the stage development of Lowenfeld's scribble stages through the inclusion of the stages named scribbling stages- unrefined rhythm, refined rhythm, and naming. Lowenfeld included a section on naming scribbles diverging from Krotzsch's concept that adults influence the naming process. Levinstein provided input focused on emotional growth as well as ability. Levinstein's first stage paralleled Lowenfeld's scribble stage and the concepts that the scribble demonstrates the disconnected thought process at this stage. The second stage appears to parallel Lowenfeld's schematic stage through the development of stories through images. The final stage appears to overlap with Lowenfeld's dawning realism stage or gang age based on sharing the mood and self-expression through art.

Luquet also provided insight for Lowenfeld's stage theory design through his inclusion of four distinct stages: fortuitous realism, failed realism, intellectual realism, and graphic narration. The first stage, fortuitous realism, appears related to Lowenfeld's scribble stage and the focus on mark making rather than the art product. The second stage, failed realism, appears to be a synthesis of both the pre-schematic and schematic stage of development and the child's ability to control their movement to create an image. The third stage, intellectual realism appears to align with the gang age or drawing realism and the development of both mood and the environment in the image. The final stage, graphic narration, appears analogous to Lowenfeld's age of reason stage and the development of images and symbolic forms. Sully influenced the physical and the psychological aspects of early age art and play as seen in the scribble stage of development when he described the movement involved in the art making process at a young age.

Each theorist helped to provide Lowenfeld with concepts and theories that were all well supported. Lowenfeld was able to gather and collect information that was relevant to what he observed while working with children and write this information into clear and concise stages. However most of these theories were dated and information on how these theories were formulated were not able to be obtained. Information on demographics of these theories, when and where they were developed, were scarce. Therefore there is limited information on the methodology of his research that comprise Lowenfeld's theory. This means that although strong, their relevance to current demographics and method used to collect data and build these theories on cannot be compared to current methods of information and data collection.

CHAPTER V: DISCUSSION

Each theorist contributed to different aspects of Lowenfeld's development of artistic stages. Lowenfeld was able to synthesize well established theories that helped to support and validate his theory. All information that Lowenfeld based his theories on came from sources that were all prior to 1940 and Brittan appears to provide updated research to Lowenfeld's theory by providing more information with newer editions. Even though the theories are well supported through empirical sources, there is a lack of evidence based research to support Lowenfeld and his methods. Lowenfeld also appeared to work with young children in both Austria and the United States which helped provide support for his theory development. However, the demographics were not recorded and his theory may not be applicable to current population demographics. Limited information on the demographics and the way in which Lowenfeld collected information on the children that he based part of his theory on means that Lowenfeld's methods rely on empirical support rather than evidence based.

During this era, Lowenfeld was able to effectively gather and synthesize information that created a foundation for both art education and art therapy. By having a title as an art therapist and providing developmental concepts he was able to provide a foundation for others within the art therapy profession. Lowenfeld's theories still continue to be used and supported. With this being said, Lowenfeld theories are a statement of his era and the need for developmental artistic stages. As the field of art therapy evolves there is a need for more evidence based research. The work of Myra Levick (2012) provides a more contemporary theory which is founded in the profession of art therapy. Although separate from Lowenfeld's theories, Levick's theories appear to align with Lowenfeld's concepts and brings artistic development into the modern era (Levick, 2003).

Lowenfeld was able to provide a foundation in which current art therapy theories are built upon. Brittain's contributions to editions after the third, attempted to build upon Lowenfeld's foundation while remaining relevant. The original intent of Lowenfeld's book, based on language and writing style, was for psychologically and academically minded individuals who wanted to obtain information on artistic development. Based on Brittain's adaptations to the writing, he made the text more approachable for all interested individuals. These changes reflect a shift in the intended audience, and included what he thought would be relevant to this audience as seen in the addition of certain images and the removal of certain sections.

Some augmentations from the original content have led to information being removed from later editions. The evaluation charts, which were removed, were able to provide questions that were relevant and important in understanding the development at each stage. By removing the relevant information, an aspect that was important to Lowenfeld's original developmental stages is lost. Also, the therapeutic chapter connected to the psychological based concepts that are important to artistic development. Lowenfeld included ideas in relation to art and the therapeutic context in which included rapport, attachment, art mediums, relationship to the creative process, and body image (Lowenfeld, 1957). Therefore it is significant to note that by removing these chapters, an aspect of Lowenfeld's original connection to the art therapy profession is removed. Lowenfeld was able to create a supportive theory for art therapy and by removing aspects of Lowenfeld's theory some of the applicability to the current field of art therapy is lost.

With all these changes and augmentations most individuals do not gain insight that Lowenfeld original provided to the art education and art therapy profession. Lowenfeld's inclusion of an evaluation chart was unique to his theory. Lowenfeld's theories where

revolutionary for his time and supported the growth and expansion of child and artistic development which ultimately supported profession of art therapy.

The intent of this thesis was to effectively evaluate the methodology and development of Lowenfeld's theories. The challenge of this thesis was that more questions were brought up than answered. Does Lowenfeld's theory apply cross-culturally? How has art education in the last 75 years influence artistic development? Does it? Many of these questions will need to be answered in future research in order to understand drawing development and Lowenfeld's connections to art therapy. The main concept that can be understood is that Lowenfeld did not provide a methodology and no information was found on the demographics that Lowenfeld utilized within his study.

CHAPTER VI: CONCLUSION

For the art therapy profession to become stronger it should be the responsibility of each art therapist to continue to evolve with the field and explore both our foundations and our best practices. Lowenfeld was able to provide an insightful theory as the art therapy profession emerged. However as art therapists continue to look towards the future, there appears to be a need for evidence based research and forms of assessment. Art therapists need to find support through art therapist developed theories such as Myra Levick's theory, which establishes a normative base for artistic developmental stages to be utilized in treatment and assessment. These contemporary stages allow us to assess individuals from current societal structures that influence development such as the influence of technology, changing demographics, and shifting family structures. Lowenfeld's theories developed from a completely different era and it is important to reevaluate our understanding of development based on current societal changes. Kaiser and Deaver (2013) found that art therapists in the field believe there is need for validity and reliability in regards to assessment. Assessment is a crucial aspect of art therapy and provides valuable information relative to best practices. Lowenfeld's theory in *Creative and Mental Growth* helps by providing support for treatment and assessment in the field of art therapy. By providing more insight into the development of Lowenfeld's theory and information on how Lowenfeld's theories continue to develop the art therapy profession is able to gain valuable information on how influential Lowenfeld is to the field and how he continues to be important for practice and treatment.

Limitations

Numerous limitations were noted throughout the research. One major limitation was the accessibility of available research. Numerous sources were not in circulation anymore due to

their publication date. Primary resources were generally not available. Sources that were obtained were not the original author's words but were secondary sources.

One challenge was that sources were only available in another language. Sources were often not available in English or in translation. Some of the research found as part of the Lowenfeld collection were in German, as Lowenfeld was originally from Austria. This means that relevant information that was only in German could not be incorporated. Since most of Lowenfeld's sources have been translated, the majority of his work could be understood by English speakers, but there may be more information available in the Lowenfeld collection at Penn State University Libraries.

Available research on Lowenfeld's research was limited. Much of Lowenfeld's original research is only available through archives which were not available online; resulting in the visitation of Penn State University. There was a limited amount of time that the original sources could be viewed. The organization system for the Lowenfeld collection was organized online with arbitrary titles and files were often misplaced. Titles used online did not provide a valid description of the available material so numerous boxes had to be looked through in order to assess for relevancy. Based on the finite amount of time and the amount of boxes, certain information may have been overlooked based on the limitations of time.

The delimitation of this study is the inclusion of only developmental theories connected to Lowenfeld and *Creative and Mental Growth*. Theorists such as Piaget and Erikson were not included. In addition, research on theorists who were not directly connected Lowenfeld's publication of *Creative and Mental Growth* were not included. Research that could not be obtained nationally through research sources was also not included.

Future Research

Research needs to continue to develop and support developmental theories and provide relevant information for current demographics. Myra Levick's theories provide valuable information based on changes societal structures however her developmental theories could still benefit from additional research and support. Quantifiable research can provide support for Levick's stages and other developmental artistic stages developed by art therapists. Gathering artwork from children nationally using a standard form of assessment would provide support and create a normative base and a systematic method for measuring these stages. In addition the methodology of the study could be recorded providing demographic information that could be compared as demographics continue to change with future studies. This would help to connect the art therapy profession globally and integrate different populations together. By supporting an art therapy based artistic development theory the profession would gain a more reliable tool for evaluation benefiting both therapists and clients.

Appendices

Appendix A

Boxes from Pennsylvania State Archives*Special Collections Library Lowenfeld Papers 1880-1985 (bulk 1930-1955)*

Box 1	Viktor Lowenfeld speaks of his life:part B, 1958	Box 1 Folder 9 Paterno/GST/AO/01.09
	Developmental stages charts, undated	Box 1 Folder 40 Paterno/GST/AO/01.09
	Articles and reprints: Lowenfeld, 1939-1949	Box 1 Folder 41 Paterno/GST/AO/01.09
	"A Reorganization of Subject Matter", undated	Box 1 Folder 43 Paterno/GST/AO/01.09
	General steps in an art education therapy, undated	Box 1 Folder 45 Paterno/GST/AO/01.09
	Conference paper: "Art: A Basic Area in Human Experience", undated	Box 1 Folder 47 Paterno/GST/AO/01.09
	Creativity and art education- handwritten, undated	Box 1 Folder 55 Paterno/GST/AO/01.09
	Handwritten lecture: Status of art education today, undated	Box 1 Folder 60 Paterno/GST/AO/01.09
	Two charts developmental stages by Barbara Bailey and Juanita Franklin, circa 1940	Box 1 Folder 65 Paterno/GST/AO/01.09
	Effects of Frustration on Children's Painting by Murray Thomas, 1951	Box 1 Folder 70 Paterno/GST/AO/01.09
Box 2	Handwritten manuscript: Creative and Mental Growth, 1947	Box 2 Folder 1 Paterno/GST/AO/01.10
Box 3	Notes on papers books, 1931-1955	Box 3 Folder 5 Paterno/GST/AO/01.11
Box 8	Artwork by normal sighted individuals-24 pieces, 1931-1938	Box 8 Folder 8 Paterno/GST/A/02.08
Box 12	Crayon drawings: 8 packets, 1940-1949	Box 12 Folder 16 Paterno/GST/A/02.17
Box 18*	Art therapy, undated	Box 18 Folder 34 Paterno/GST/AL/04.05

	Photos children's artwork, undated	Box 18 Folder 37 Paterno/GST/AL/04.05
	Negatives illustrations Creative and Mental Growth, 1930-1951	Box 18 Folder 52 Paterno/GST/AL/04.05
	Negatives art therapy, undated	Box 18 Folder 53 Paterno/GST/AL/04.05
Box 20	Hand-drawn chart on developmental stages and visual/haptic, circa 1950	Box 20 Folder 1 Paterno/GST/B/06.S10-B01
	Artwork from Creative and Mental Growth: 14 pieces, 1940-1956	Box 20 Folder 3 Paterno/GST/B/06.S10-B01
	Sign: "Self Adjustment Through Creative Activity" with description, 1940	Box 20 Folder 7 Paterno/GST/B/06.S10-B01

* This Box could not be obtained based on the original visit. It was obtained on secondary visit to Pennsylvania State Libraries.

Appendix B

Figure 1

		EVALUATION CHART <i>Schematic Stage</i>		
		<i>None</i>	<i>Some</i>	<i>Much</i>
Intellectual Growth	Has the child developed concepts for things familiar to him? Are his concepts clearly expressed? Has he a tendency to differentiate his schemata? (Hands with fingers, eyes with eyebrows, etc.) Does the child relate colors to objects?			
Emotional Growth	Does the child use his schemata flexibly? Does the child vary the sizes according to the significance of the represented objects? Does the drawing show deviations from the schema by exaggerating, omitting, or even changing meaningful parts? Does the child use his lines or brush strokes in a determined fashion? Is there a lack of continuous "folding over"? Is there a lack of continued over-exaggeration?			
Social Growth	Does he identify himself with his own experience? Has the child established spatial correlations? Does the child use base lines? Does the child characterize his environment? Does the child show awareness of his social environment in identifying himself with others?			
Perceptual Growth	Does the child mostly draw with continued uninterrupted lines, expressing kinesthetic sensations? Is the child aware of differences in texture? Does the child depart from the use of mere geometric lines? Does the child show visual awareness by drawing distant objects smaller? Does the child differentiate his color-object relationships? (Does he use different greens for different plants and trees?) Does the child model analytically?			
Physical Growth	Does the child show body actions in his drawings? Does the child show the absence of continuous exaggerations of the same body parts? Does the child show other signs which indicate his sensitivity toward the use of his body? (Joints, special details.) Does the child guide his brush strokes so that he remains within the predetermined area?			
Aesthetic Growth	Does the child unconsciously utilize his drive for repetition for design purposes? Does the child distribute his work over the whole sheet? Does the child think in terms of the whole drawing when he draws—not in terms of single details only? Does the child use decorative patterns?			
Creative Growth	Does the child create his own representative symbols (concepts)? Does the child vary his schemata? Does the child frequently change his symbols for eyes, nose, mouth, etc.?			

FIGURE 1- EVALUATION CHART OF THE SCHEMATIC STAGE. ADAPTED FROM CREATIVE AND MENTAL GROWTH (PP. 168-169), BY VIKTOR LOWENFELD, 1957, NEW YORK: THE MACMILLIAN COMPANY. COPYRIGHT 2015 BY THE MACMILLIAN COMPANY. ADAPTED WITH PERMISSION.

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