

Chapter II

Review of Related Literature

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2.0. Introduction

This chapter presents the Review of Related Literature classified in two divisions 1) studies conducted abroad and 2) studies conducted in India. Further, these are classified as i) studies related to Wholistic Education, ii) studies related to Wholistic Development and iii) studies related to Wholistic Approach.

2.1. Studies conducted abroad

2.1.1. Studies related to Wholistic Education

Conti (2002) conducted a study on *The Spiritual Life of Teachers: A Study of Holistic Education and the Holistic Perspective*. The purpose of this study is to provide a deeper understanding of holistic education by describing the connection holistic education teachers perceive between their spirituality and their pedagogy. Using portraiture methodology, the study describes and examines four secondary holistic education teachers in holistic education settings. The participants represented four fields within holistic education: Waldorf education, Quaker Friends education, Parker Palmer's *Courage to Teach* Program and Rachael Kessler's *Soul of Education* passages program. Data collection consisted of interviews, curriculum document collection, classroom observations and descriptive storytelling around artifacts. Individual portraits of each participant were constructed for data analysis and interpretation in order to inform the research questions: How do holistic education teachers perceive their own spirituality, spiritual life and spiritual beliefs? How do holistic educators describe their pedagogy and curriculum design? How do holistic educators perceive that their spirituality affects their classroom practice and pedagogy? There have been multiple findings from the study including: 1) Holistic education emphasizes the idea of connectedness; 2) Participants' spiritual wisdom is used as source of insight in pedagogy; 3) Participants demonstrate a holistic view of education that is grounded in their own holistic growth; 4) Participants view teaching as both sacred and a calling; 5) Participants believe that much of their success is

dependent on their own authenticity as whole persons. The study concludes that holistic education may be dependent upon teachers who have a holistic worldview grounded in their own attempts to live meaningful lives. Several principles of holistic education were drawn from the data: 1) Holistic education is based on a holistic worldview, philosophy and perspective that appears to stem from teachers who actively seek to live a spiritual and meaningful life; 2) Holistic educators desire to educate the whole student including the student's emotional, intellectual, social and spiritual aspects; 3) Holistic education is dependent on educators who have an awareness of the holistic and developmental needs of students and attempt to meet these needs through a wide variety of pedagogical approaches; 4) Holistic education seems to be dependent on teachers who have an inclusive-critical orientation towards spirituality and student spiritual development.

Enns (2003) conducted a study - *Toward a Theoretical Model of Mutuality and its Implications for Intercultural Theological Education: Holistic and Analytical Cognition*. Theological education has entered the twenty-first century with many challenges. The intent is to explore and practice cultural mutuality in order to be able to move towards a reality that is intercultural and global. Mutuality is defined in this study as an ongoing process by which all who participate in it experience some degree of transformation. Since mutuality is dynamic, it may take on many nuances. This study suggests following: universalism without uniformity, being aided by the "other," cycling through differences, and going back and forth among differences. Mutuality needs to be at work at all levels within the global dialogue while moving into the direction of intercultural theological education. However, in a special way it needs to be at work in the area of reasoning, since reasoning is an important ingredient of dialogue and of education. Chapter two describes and analyzes an existing theoretical model which presents two different ways of perceiving and processing information: holistic and analytic cognition. The first is based on ancient Chinese reasoning and is harmony oriented. The second is based on ancient Greek reasoning and is control oriented. East Asia (East) is representative of holistic cognition, and European-America (West) of analytic cognition. The model suggests that these differences stand in a direct and homeostatic relationship to social organization and practices such as collectivism and individualism. Since the mentioned theoretical model presents the differences of reasoning in a rather

dichotomized way, chapter three proposes a modification of the model, which will allow for mutuality between holistic and analytic cognition. It is proposed that the model of mutuality (1) be based on a dynamic constructivist approach to the study of culture and mind, (2) be built on a critical realist epistemology, and (3) make room for the biblical wisdom tradition as a didactic frame of reference. Chapter four looks at the implications that the above model would have for intercultural theological education. The different nuances of mutuality are analyzed in a deeper way and issues for the different elements of the teaching/learning process in intercultural theological education are raised.

Forbes & Robin (2004) conducted a study on what Wholistic Education Claims about Itself: An Analysis of Holistic Schools' Literature and found that: Many common phrases, such as, freedom, experiential learning, love, and community were being used in a variety of ways and contexts, often pointing toward somewhat different phenomena. Similar notions about the purpose of education, the nature of children and the state of childhood and the nature of teaching and learning were expressed in a wide variety of ways while often pointing to similar understandings and perspectives. There seems to be a core set of values and perspectives which reveal family resemblances for the wholistic education, that appears to deserve a distribution from other schools that might be better grouped as performance-based, progressive, self-directed or back-to-basics. Rather than trying to claim that some schools in our sample were completely wholistic while others were not, it seems more justified to claim the existence of a continuum of wholistic qualities along which schools fall.

Grimes (2007) conducted a study on Multidimensional Classrooms: Developing a Comprehensive Research Base for Holistic Education. Holistic education encompasses a wide range of philosophical orientations and pedagogical practices. While the holistic education movement has no overarching national organization, the movement encompasses and embraces a wide range of schools and schooling practices. This dissertation attempts to provide a comprehensive review, analysis, and synthesis of holistic education within the context of best practices of theory and research on multidimensional classrooms. In so doing, it hopes to demonstrate the strength of holistic education as it is mirrored in the existing literature, as well as to offer insights into research still needing to be done in order to solidify the strength and importance of holistic education. A three-stage study was conducted in order to

determine the strengths and gaps within the holistic education research base. First, a literature review was conducted of seminal literature within the holistic education movement, best practice theory and multidimensional classrooms. Second, the literature across all three strands was compared across internal categories as well as constructed categories. The third stage of the study reviewed the primary and secondary research within holistic education within a five-fold framework. Holistic education offers an important philosophical and pedagogical approach that can serve as a complement or alternative to contemporary educational reforms. Yet in order to be able to do so, the holistic education field may need to better articulate, align, and reconsider aspects of its theories and practices in light of the findings of this study. Specifically—based on the analysis across categories of organizational structures, learning styles, curriculum design, instructional techniques, and assessment strategies—several glaring “holes” as well as numerous strengths were discovered. A summary of these may be warranted. A major conclusion of this study was that there are specific and analytically distinct gaps in the holistic education research base. In detailing these gaps (as well as specific strengths) it becomes possible for the holistic education movement to more clearly and with greater focus develop short- and long-term research agendas. Such a review thus offers important considerations for future directions of holistic education researchers.

Kelly (2006) conducted a study on the arts as catalyst, catharsis and crucible: Towards a personal philosophy of art. This qualitative result explores the role of the arts in human development from a holistic educational perspective. The guiding question of this inquiry is: How does the artistic process facilitate holistic learning and personal transformation? With specific focus on visual art it examines the three levels of experience within the artistic progress: the role of artistic medium; the role of artistic representation and the imagination and the role of creative act.

This study uses narrative portraiture as inquiry and examines the live experiences and personal practical knowledge of three visual artist educators. It examines their ongoing narratives within the arts, key experiences of holistic learning in visual arts and their experiences of how the artistic process facilitates personal transformation. The key experiences in the arts for each participant are varied in their biographical details. However, there are three commonalities: through encountering a holistic approach to the visual arts their relationship to the artistic process changed. They

valued and cultivated a profound connection to the nature and spirituality and each indicated important connection between the spirit of play and creativity.

Key emergent themes include: the development of heightened awareness; learning to perceive and discern in new ways; becoming literate with the various artistic languages; developing greater soul-spiritual capacities and the arts as crucial catalyst for personal transformation.

This study conducted that within the visual arts the artistic process acts on the senses like a central catalyst for change. The imagination acts as a powerful and critical agent for catharsis and enables the creative acts of the artist to create a crucial crucible for becoming of artist. This study makes significant contributions to the fields of holistic education, arts education, transformative learning, teacher development and art-based methodology.

Larimer (2008) conducted a study on Authentic Education and the innate health model: An approach to optimizing the education of the whole person. The researcher examined outcomes of instruction using an approach called Innate Health which claims that awareness of the dynamics of thought will stimulate healthy, productive behaviour. While much has been written about socio-moral education; little research has addressed the role of thought, innate qualities or attention to the whole person as mediators of learning and development.

Two self-report scales (Understanding of Experience Scale and Lifestyle Assessment Scale) were constructed to measure outcomes of instruction among participants in Innate Health seminars. Data were evaluated using Analysis of Variance. Result of the analyses provided substantial support for the hypotheses that participants would report increased well being following the Innate Health seminars and that improvement in mean scores would remain relatively stable over time. The concept of Authentic Education was suggested as an appropriate theoretical frame work for incorporating models such as Innate Health as a part of a comprehensive approach to educating the whole person.

Macklin (1997) conducted a study on Holistic Education: Enhancing Wholeness, Creativity, and Connections in the Classroom. Holistic Education offers us a vision of wholeness, creativity, and interconnectedness. The task which lies ahead is to make this vision a reality. In this found hope for personal, social, cultural, and global transformation. Investigator has outlined a beginning step. Investigator has designed

and demonstrated a model for transformational learning. Participants experienced and learned the holistic principles of wholeness, creativity, and connections, both implicitly and explicitly then integrated these principles in their designs of holistic education programs. The eloquent reflections of the participants described their growth and transformation. This course challenged their thinking and their paradigms. It is clear that they experienced increased self-awareness and strong connections with the members of the group. The participants described the visualizations, reflections, mandalas, and group process as very meaningful and reported that the activities were enjoyable and helped to increase their understanding of the information. The investigator has illustrated numerous examples of their comprehension of the course material and their integration of this transformational learning experience into their classrooms and daily lives. The groups were relatively small in size, but the participants indicated that this was an important factor in allowing the formation of deep connections within the groups. They remarked that they would not have wanted the groups to be any larger however; the course design can easily accommodate larger groups. The participants represented a wide range of grade levels, from preschool to high school, and specialties, from teachers to speech therapists, a special education teacher, and a librarian. It is clear from the similarity in the experiences of the two groups that this is a flexible design whose components can be rearranged without significantly altering the learning. Spreading this course out over a full semester would allow more time for absorption of the material. It would also give the students time to explore the course components of their choice in greater depth and to share their explorations with the class. In nature, this course was designed to touch briefly on a fairly large number of concepts. Lecturing is an efficient method for presenting large amounts of information, but it is generally not the most effective way to engage the learner. Activities usually take more time, but as has been demonstrated they enhance learning and connection. There was not much time available to diverge greatly from the agenda. There were occasions when I altered the timing or order of the activities in response to the group. For example, the summer group really enjoyed the Sherpa Walk, which is done with the blindfolded participants forming a long chain and being guided around the school. They asked if they could repeat the activity with partners, so Investigator substituted that for the balloon and string activity. Ideally, I would like to have an agenda designed largely by the learners, and this is what I have planned for Holistic Education II. In the design of the follow-up course I introduced

concepts from Riane Eisler and David Loye's *The Partnership Way* and Daniel Goleman's *Emotional Intelligence*. I also incorporated more of David Lazeur's work on multiple intelligences. I included visualizations, adapted from the work of Frances Vaughan, which focus on the archetypes of healer, teacher, visionary, and warrior. A major portion of the agenda will be created by the participants, as self-generated and self-directed learning is an important component of holistic education. They will choose topics from Holistic Education I to pursue and present to the group, and they will design many activities to assist in the integration of the holistic principles and course components into their classrooms and curricula. There will be a focus on the facilitation of connections on multiple levels, which will include many opportunities for individual reflection and group process. I am looking forward to facilitating this course. As Jillian said, we are poised on the edge of a major transformation. The task ahead is daunting, yet exciting. The transformation of education requires a transformation of its fundamental paradigms. Donna Williams, who, despite her autism, wrote the inspiring books *Nobody Nowhere* and *Somebody Somewhere*, describes how her doctor helped her. "Dr. Marek challenged my logic, my belief system, my world... In fact, he was treading upon my very perception of myself, my relationship to my body and everything around me. He was challenging my entire reality, past and present, in order to change the course of its future" (1994, p. 68). If we are to win the race between consciousness and catastrophe, we must do no less than this for education. The holistic paradigm offers us a larger context, a spiritual and ecological perspective which honors our wholeness and humanity. An education grounded in this paradigm holds a dream for the future. As Johann Goethe said, "Whatever you can do, or dream you can, begin it Boldness has genius, power, and magic in it"

Malekpour (2003) conducted study on Holistic Science: an Understanding of Science Education Encompassing Ethical and Social Issues. Science has often been viewed, by the majority of our educators and the general public, as being objective and emotionless. Based on this view, our educators teach science in the same manner, objectively and in an abstract form. This manner of teaching has hindered our learners' ability for active learning and distanced them from the subject matter. In this action research, researcher had examined holistic science pedagogy in conjunction with a constructivism theory. In holistic science pedagogy, scientific knowledge is

combined with subjective personal experiences and social issues. There is an interaction between student and scientific data when the students' context, relationships, and lived experiences that play a role in the scientific recognition of the world were incorporated into the learning process. In this pedagogical model, the factual content was viewed from the context of social and ethical implications. By empowering learners with this ability, science knowledge will no longer be exclusive to a select group. This process empowers the general population with the ability to understand scientific knowledge and therefore the ability to make informed decisions based on this knowledge. The goal was to make curriculum developers more conscious of factors that can positively influence the learning process and increase student engagement and understanding within the science classroom. The holistic approach to science pedagogy has enlightened and empowered our adult learners more effectively. Learners became more actively engaged in their own process of learning. Teachers must be willing to listen and implement student suggestions on improving the teaching/learning process. Teachers should be willing to make the effort in connecting with their students by structuring courses so the topics would be relevant to the students in relation to real world and social/ethical and political issues. Holistic science pedagogy strives for social change through the empowerment of adult learners with scientific knowledge. This research has demonstrated that learners can better understand the decision-making process and more easily relate their experiences, and therefore their knowledge, to social/political and ethical issues.

Merritt (1994) conducted a study on Transforming Secondary-Science Education for the 21st Century: Sources of Evidence for a Global, Holistic, Integrated Systems Paradigm and a Biospheric Model of Curriculum Development and Change. The purpose of this dissertation is to conduct an expertise-oriented appraisal of differing conceptions of modern and post-modern secondary-science education in order to establish a context and framework for a new, Systemic and paradigmatic model of curriculum development and change. Based on an extensive literature review and synthesis of recent developments in a variety of interdisciplinary research fields, and interpretations of the informed opinions and consensus judgments of two, national, blue-ribbon, expert panels science educators (N = 25) and inter-disciplinarians (N = 23), the study evaluates various sources of evidence to support a global, holistic, integrated curriculum (GHIC) paradigm and a global, holistic, integrated systems

(GHIS) or biospheric model of curriculum development and change. The GHIC paradigm and the GHIS/biospheric model are broadly based on general systems theory and a systems-science approach to the secondary curriculum. The study is qualitative in design and utilizes a modified Delphi technique, multiple rounds of questioning and feedback, and descriptive, statistical methods to summarize the expert opinions of panelists concerning the importance, efficacy, and feasibility of proposed curricular issues or action initiatives associated with study objectives. Although the study reports other measures of central tendency and variability, it relies heavily on the use of means, medians, and interquartile ranges to describe the distribution of panelists' responses and measure the levels of consensus. The study concludes that the GHIC paradigm and the GHIS/biospheric model for curriculum development and change are valid and potentially effective approaches to both "radically" and pragmatically transform secondary-science education for the 1990s and 21st century. The findings of the study also support: (a) the abandonment of current, traditional educational structures; (b) the creation of new learning systems; (c) the reconceptualization and redefinition of "science achievement"; (d) the rejection of the traditional, subjects-centered curriculum design; and (e) the replacement of compartmentalized science courses with interdisciplinary, integrated ones. The transformative change scenarios developed by panelists effectively distinguish "pre-modern," "modern," and "post-modern" educational changes, and outline their visions for the radical re-invention of secondary-science education for the new millennium.

Morris (2005) conducted a study on "The Whole School Initiative: An investigation of Casey Elementary School." the longitudinal study focused on the impact of the whole school initiative (WSI) on one arts-infused school in Mississippi. The WSI, a comprehensive school reform programme established by the Mississippi Art Commission (MAC) in 1992. 26 Mississippi elementary and middle schools are currently involved in the project. WSI's major purpose is to promote chronological all-inclusive art education programme that serves the non-artistically talented students. Mixed methods were used to collect and analyze the data. The investigation results were overwhelming positive impact of WSI in the education of children. As a result of art integration and art celebration, the traditional educational experience has been enhanced achievement and student's behaviour has improved and on-going

quality professional development has encouraged better teaching and student engagement in learning.

Rathnam (2013) conducted a study on *Whole Teachers: A Holistic Education Perspective on Krishnamurti's Educational Philosophy*. The purpose of this qualitative research study, which utilizes a phenomenological inquiry method, is to inquire into the awareness of what it means to be a whole teacher from the perspective of the philosophy of Jiddu Krishnamurti, a philosopher/spiritual teacher. Four participants (teachers) were interviewed from the Oak Grove School, an alternative, holistic school founded by Krishnamurti in 1974. This inquiry probed into teachers' thinking, teachers' lives, teachers' inner lives, teachers' contemplative practices, teachers' calling/vocation and teachers' pedagogy. The findings of this inquiry reveal the awareness that exists among the participants with regards to their understanding of Krishnamurti's educational philosophy and the way in which this philosophy has shaped their lives and the lives of their students (both implicitly and explicitly). The findings from this research further show that Krishnamurti's philosophy has certainly had an impact on the participants' wholeness. Krishnamurti was never interested in imposing his philosophy on the teachers to think in a narrow groove. Rather, he challenged them to arrive at wholeness or a holistic approach towards living by their own volition, by putting aside all philosophy, including his own. This research points towards the possible ways in which wholeness can be developed using: Innate wisdom (teachers' inner life, teachers' calling); wisdom gained through experiencing life (teachers' life, teachers' thinking); wisdom gained through their teaching experience (teachers' pedagogy) and wisdom gained through practices that bring harmony to the mind, body and spirit (teachers' contemplative approaches). An experiential model titled, *The Flower Model: an Experiential Metaphor* – which integrates the three stages of awareness – was developed using Krishnamurti's approach towards wholeness. This model can be used to guide teachers with their respective psychological conditionings that reside or exist in their thinking, lives, inner lives, contemplative practices, vocation and pedagogy/curriculum design.

Rudge (2008) studied 'Holistic education: An analysis of its pedagogical application'. This dissertation presents the pedagogical application of the philosophical ideas advocated by the holistic education movement in four approaches to schooling. Holistic education is an eclectic and inclusive movement, which emerged in the mid -

1980s as a response to the then dominant worldview of mainstream education. It is an educational paradigm that integrates the idealistic ideas of humanistic education with spiritual philosophical ideas. It incorporates principles of spirituality, wholeness, and interconnectedness along with principles of freedom, autonomy and democracy. Holistic education theorists assume an integration of what most progressive and democratic movements in education have proposed should be kept separate namely spirituality and humanistic ideals, While these principles may be combined philosophically into an ideal of education. The question asked in this study is as follows: could they be jointly applied in an approach to education? This dissertation explores the pedagogical applicability of these principles and examines some of the tensions that arose compared how holistic education principles were applied in different approaches to schooling. To carry out this study four approaches were selected to schooling that draw on holistic educational ideals in order to analyze the pedagogical application of the philosophical principles advocated by the leading theorists in the holistic education movement. For analytical purposes, the principles of holistic education were synthesized into eight broad principles (spirituality, reverence to life/ nature, interconnectedness, human wholeness, individual uniqueness, caring relations, freedom/autonomy, and democracy). For each principle, pedagogical features across the selected school system were identified that argue to promote that particular principle and examine the way and the extent by which they are applied. Finally, compared the findings of all pedagogical features to determine the extent to which each principle is applied in each of the pedagogical approaches to schooling. The findings of this study indicated that there are tensions in accommodating pedagogically the spiritual and humanistic principles of holistic education in one approach to education. Further some of these tensions were examined across the four selected approaches to schooling.

Xu (2005) conducted a study on Levels of Wholetheme Instruction and Student's Outcomes; A Mixed-Method study. It distinguishes three different levels of constructivist teaching varying in the degree of integrated wholethemeness: direct, eclectic and integrative. The sample consists of three instructions and 96 students. Qualitative results from interview and videotaped lessons revealed three distinguishable approaches, varying over all in direct, elective and integrative levels of whole theme instructions. Qualitative results from the analysis of ratings on an

essay test suggested that students in integrative level also demonstrated significant gain from pre-test to post-test in an ethical decision making measure. The study shows that employment of whole theme instructions enhances the student's outcomes. This study has special significance in the field of education and psychology.

2.1.2. Studies related to Wholistic Development

Benson (2009) Studied 'Wholistic development: A survey of the core affective dimensions of the whole person as defined by college educators and business professionals in the south-eastern region of the United States of America.' A central theme of the literature review for this research study was that business professionals desire more than specific knowledge and intellect as they seek employees for the future. Thus, the purpose of this work was to identify the core affective dimensions of the whole person that should be goals or learning outcomes at four-year colleges and universities as perceived by those who conceptualize whole person goals and learning outcomes in colleges and universities (college educators) and the end users (business professionals) of the graduates of America's colleges and universities. Quantitative and qualitative data were collected through the use of mailed survey questionnaire sent to a purposeful sample of college education and business professionals. The findings identified character, judgment, and moral reasoning as the core affective dimensions of the whole person that should be considered imperatives as goals or learning outcomes at four-year colleges and universities. This study includes recommendations for implementation and future research. These recommendations encourage educational planners to seek deliberate and purposeful opportunities to include the core whole person dimensions and other important whole person dimensions, as time and resources permit, in curricular and co-curricular baccalaureate degree-seeking programs.

Hooten (2009) conducted study on the effect of handwriting, spelling and T-units on holistic scoring with implications for dysgraphia. This study examine the relationship of holistic scoring with handwriting legibility, spelling accuracy and number of T-units within compositions written by children in grade three through six using path analysis. A sample of two-three compositions was rated for handwriting legibility and composition quality, coded for number of T-units and percentage of accurately spelled words. Number of T-units was consistently the strongest predictor of holistic scoring

across the four grade levels. Handwriting legibility and spelling accuracy yielded varying results in different grade levels.

Karmer (2010) conducted a study on *Closer to the heart: An exploration of caring and creative visual art classrooms*. Four questions initiated the study

1. What are the intentions of visual art teacher who state that they believe creative and caring environment is essential for art instructions and students' holistic development?
2. How are these intentions realized in their practice?
3. How does the enacted curriculum affect students' willingness to take creative risk?
4. How do the intentions and practices of the teacher impact students self concepts?

Sample: Six teachers in three Colorado and three Western Australian schools and 25 students participated in this study.

Tools: Semi-structured interview, Observation and Photo essay.

Findings:

- It facilitated the development of interpretations, thematic and evaluation that inform understanding and enhance ability to help students within visual art and other content area.
- The addition of photo essay was based on recent support for having participants' utilized metaphor through photographic image to more effectively express their feelings, beliefs, and interpretations.

Kim (2006) conducted a study on an ethnographic study of the culture of a third-grade ESL class: *ESL education for whole child development*. The central goal of this ethnographic study is to construct an integrated description and interpretation of the culture of an ESL (English as Second Language) class at an American public school. This study examined the nature of classroom processes and interaction and interpreted classroom life in terms of its relation to the children's overall development and school life. Methods of data collection included five-months of classroom observation, audio-video recordings of classroom lessons, field notes, photograph, document collection and interview with teachers, children, parents and a state official. The teacher's observations are;

- One salient theme highlighted is the variety of ways the ESL class under investigation addressed the children's linguistic, academic/cognitive and emotional needs in a balanced way. The class served not as an isolated language laboratory but as a site addressing the children's diverse changing needs.
- Classroom practices used to promote linguistic development also supported integration of the children's socio-cultural, individual resources, quality teacher-student interaction and co-operative learning.
- To foster academic/cognitive development, academic content was incorporated into ESL instruction. To encourage emotional development, the class functioned as a care provider when needs arose.
- This study has practical implications for ESL and mainstream teachers, teacher educators, policy makers and classroom researchers.

Lim (2006) conducted a study on Effect of Part-task and Whole-task instructional approaches and learners levels of expertise on learner performance of cognitive task. The study investigated the effect of two instructional approaches and levels of learner expertise on learner's acquisition and transfer of complex cognitive skills. In addition, the study also examined the effects of these variables on learner's cognitive load, instructional effectiveness, time on task and their attitude towards the instructions. 51 undergraduate students in four session of an instruction to educational technology course participated in study. Two sections were presented to each group. The results indicate that there were statistically significant difference between two treatment groups (whole-task > part-task). It also shows the a) Higher efficiency on whole task test, b) Higher efficiency and higher scores on far-transfer task test and c) more confidence towards the instructions. The findings of the study suggest that the use of a whole-task instructional approach based on the 4C/ID-model (van Merriënboer, 1997) may facilitate the acquisition and transfer of a complex cognitive skill.

McMullin (2014) conducted study on The Holistic Development of Teachers: A Conceptual Model of Integrative Education and Pilot Program for Pre-service Teachers Based on Mindfulness and Social Emotional Learning. Using the conceptual model as an analytical lens, pre-service teachers would conduct classroom observations and write up detailed field notes; the intention would be develop a reflective stance towards their practice and to begin approaching teaching and

learning from a more holistic perspective. The program would create a partnership with one or two schools that operate year round in order to have access to schools in session so that pre-service teachers are in classrooms right away. Ideally, experienced teachers who are implementing social emotional learning in their classrooms would serve as mentors for program participants. The *SELF in Teaching Program* is not intended to be a ‘crash course’ on holistic education, social emotional learning or contemplative practice. On the contrary, it is envisioned as a beginning step towards the ongoing holistic development of teachers. Mindfulness and social emotional competencies are skills to be cultivated, practiced and strengthened over time. As such, ongoing professional development would ideally be arranged with placement schools in order to provide ongoing support for teachers in the program (and for other teachers who may be interested in the work). The goal would be to support the wellbeing, renewal and sustainability of teachers through a holistic approach to teacher education and ongoing professional development.

Osment (2008) conducted a study on ‘Spirituality and wholeness: Essential components of congregational revitalization in the digital age. The discussion of the study is presented as;

What are we missing in our lives and congregations today is wholeness. Our disconnection lies not on the outside but in the inside. This in turn leads to a lack of balance and the development of both psychological and spiritual problems. The famous and infamous psychologist Carl Jung studied, practiced, and lived in this realm of wholeness. His work is arbitrarily dismissed as nonsense by some. Yet within his imperfect work may possibly lay the solution needed for the ills of both society and church. Our principle failure in this day and age is to acknowledge the special nature of our relationship with God. The blessings we have receive in terms of knowledge, technology and materials have created a type of blindness in us. Through the wonders of all we have, we have difficulty seeing God. Each and every day we are exposed to numerous evidences of God’s activity. Yet we pass over these events as if they are childish fairy tales. We must, therefore, step out and proclaim through the good news that an alternative way of life exists. This is a way which can be balanced and whole. It is a way which can be enriching and fulfilling. It is a way which can be healing and helpful.

Pearsall (2009) conducted a study on Reframing human development in public education: Equity, Achievement, Accountability (and Human actualization) through whole person teaching and learning. The investigative concerns represented in two broad areas of educational research: (1) the human conscious and human learning motivation as these concepts related to the development of humanistic, emancipator, and transformative education system; and (2) the role of experiential knowing, indigenous wisdom and dialogic instructions in generating sustainable and multicultural education and educational leadership. Reflecting both the areas of concern, the focus of investigation was concentrated on the role of human development in realising the social, economic, and human actualizing goals in public education. A primary goal for this investigation was to promote the promise of holistic, cognitive, social and moral human development of all persons through public education. Using a quantitative two-stage survey designs, college professors, legislator, superintendent, principal, and teacher perspectives were collected from first stage in-depth interviews and second stage free response questionnaires. Content/thematic, inductive/constructive, and logical/cross classification analyses yield an understanding about the participant perspectives in terms of the purpose for public education; core elements of human development; pedagogical methods linked to human development; the perceived importance of human development in relation to students achievement and the purpose for public education, educational policy and practice linked to human development; and the potential of human development as an accountability measure. Data analysis also revealed participant understandings about the external socio-cultural motivators and internal consciousness motivators that impact human development. A whole person education model developed from these findings is introduced and implications are discussed in terms of socio and structural change, teacher education and instructional change, and educational leadership change.

Robbins (2005) carried out a study on Wholistic Workplace Ministry (WWM): An Onsite Employee Benefit of Care/Coaching, Connection/Inspiration and Enrichment. WWM is a new frontier for religiously pluralistic agency who wants to serve in community. It is an innovative application of ministry in the form of an onsite employee benefit. It is implemented through the “Wholeness at Work” model which is designed to facilitate the well-being of employees and the corporate culture. The

model features functions- care/coaching, connection/inspiration, and enrichment- which are implemented by the WWM Facilitator. The wholistic value and behaviour list, grounds the model in ethical principles which foster wholeness, “A way of being which is life-enhancing for oneself, for others and for the world.”

2.1.3. Studies related to Wholistic Approach

Borowski (2003) conducted a study on A Holistic Approach to Teacher Education. A teacher candidate reflects on her experience in, what she terms as, a “holistic soulful” pre-service elementary teacher education program that focuses on student-teacher wellness and student-centered learning. The commitment of the faculty to nurturing the “teacher-as-person” is reflected in the structure of an integrated program that promotes connections between personal dimensions, connections among people, connections between program components, and connections between theory and practice through the use of inquiry-oriented practice. She examines the impact of a compulsory action research project within the program that fosters reflective thinking among the teacher candidates. It is within the practice of this program what the faculty team advocates for education in general: care for the well-being and soul of teachers and their students.

Burnett (2010) conducted study on Holistic Approaches to Creative Problem Solving. This qualitative research study explores the complex phenomenon of intuition within the Creative Problem Solving process. The first part of the study utilized 100 alumni, students, professors, and visiting professors of the International Center for Studies in Creativity (ICSC). These participants were asked a series of questions in order to help the researcher answer the questions: How do creativity practitioners construe intuition? What role does intuition play in the Creative Problem Solving (CPS) process? The second part of the study involved eleven graduate students enrolled as Creative Studies majors at ICSC who were participants in a course on holistic approaches to Creative Problem Solving. The study explored the questions: are intuitive tools and techniques effective in CPS? If so, when are they effective? When CPS is taught from a holistic perspective, is transformation likely to occur? Four theoretical models, including: a definitional model of intuition; a skill set for intuition, a process to improve the effectiveness of intuitive tools; and a transformational model of learning, were developed. These models were designed as a

way for creativity practitioners to understand this phenomenon and to incorporate it into their practices.

Johnson (2014) conducted a study on *Twenty-first Century Transformation: A Holistic Pedagogical Approach*. This dissertation is a qualitative single case study design investigating the effectiveness of holistic pedagogy in meeting the needs of learners in the 21st century. “The future growth and stability of the global economy depends on the ability of education systems around the world to prepare all students for career opportunities and help them attain higher levels of achievement” (Yoo, 2008, p. iii). In today’s society, employers seek out new skills to increase their competitiveness in a global marketplace. However, educational leaders have made minor changes to education to meet the changing needs of modern society. Not many schools revised their pedagogy to reflect current trends and technologies. The current study will explore holistic pedagogy to determine whether it prepares learners for modern society.

Neves (2009) conducted a study on *A Holistic Approach to the Ontario Curriculum: Moving to a more Coherent Curriculum*. This study is an interpretive form of qualitative research that is founded in educational connoisseurship and criticism, which uses the author’s personal experiences as a holistic educator in a public school to connect theory and practice. Key research questions include: How do I, as a teacher, work with the Ontario curriculum to make it more holistic? What strategies have I developed in order to teach a more holistic curriculum? What kinds of difficulties interfere with my practice as I attempt to implement my holistic philosophy of education? This dissertation seeks to articulate a methodology for developing holistic curriculum that is in conformity with Ontario Ministry guidelines and is also responsive to the multifaceted needs of the whole student. The research findings will serve to inform teachers who wish to engage in holistic education in public schools and adopt a curriculum that is transformative while still being adaptable within mainstream education.

Norris (2009) conducted a study on *Making Sense of Teaching: a Holistic Approach to Teacher Reflection about Practice*. The purpose of this study was to examine the lived experience of reflection and document how a holistic approach to teacher reflection contributes to teachers’ understanding of, and improvement in their pedagogical practice. The investigation asked how classroom observations, when

followed by a reflective dialogue, impact pedagogical practice. The particular focus included how teachers make sense of observational data during a post-observation, reflective dialogue; how teachers reflect on classroom observational data; and how the holistic reflection experience impacts teachers' pedagogical practice. Three research questions guided this study. How do teachers make sense of observational data during a post observation reflective dialogue? How do teachers reflect on classroom observational data? How might the holistic reflection experience impact teachers' pedagogical practice? Findings from this study provide implications for incorporating the practice of teacher reflection and reflective dialogue as professional development and for educational research.

Piccone (2013) conducted a study on *A Holistic Approach to College Developmental Reading and English Courses: Increasing Students' Completion Rates Using a Student-Centered Course Model*. Many students entering the college at the Research Site need remediation in reading and English skills in order to enter college-level courses. The current teacher-centered instructional model has not produced sufficient completion rates in developmental courses. The purpose of this action science research study was to evaluate the effectiveness of a new student-centered course model based on computer-assisted and small-group learning on completion rates, learning strategies, and five topics in reading and English in developmental courses at the College. The study compared the new student-centered course model (intervention group) to the existing teacher-centered course model (control group) using pre and post-test scores. Through a qualitative questionnaire, students' perceptions on teaching models provided feedback on instructional strategies. The theoretical framework for this study consisted of humanistic and cognitive learning theories, action research, systems theory, action science theory, and change theory. These theories formed the basis for the implementation of the intervention that utilized computer-assisted mastery learning software with small learning groups, and small class sizes. Three quantitative instruments and one qualitative instrument were used to collect data during the study, which included a total of 143 participants in the intervention and control groups combined. The majority of results for the quantitative data analysis indicated that there was no statistically significant difference between groups associated with the four quantitative research questions based on completion rates, learning strategies, and five topics in reading and English. The results of the

qualitative findings indicated that the intervention group valued the importance of computer-assisted instruction, small-group learning, and the relationship between class and lab learning. The control group indicated greater value in classroom learning.

Shneyder (2006) conducted a study on A Holistic Approach to Biology Instruction. This study examined whether this holistic approach could be used successfully for biology instruction on the college level. During the spring semester of 2005, a quasi-experimental research design was implemented in two sections of BIOL 1120 (General Biology) to address this issue. The control group experienced traditional instruction. The experimental group experienced holistic instruction using the Lubichev approach. The achievement in both groups was compared using a 1 x 2 ANCOVA procedure. A statistically significant difference (0.028) was found in favor of the group that experienced holistic instruction.

Silva (2005) conducted study on A Holistic Approach to Student Support and Engagement. This study examined how College of the Rockies (COTR) can develop a holistic support and engagement experience for Aboriginal students to help them to succeed in reaching their education goals. Additionally, the study explored how the college can change its reactive intervention and support strategies to proactive strategies. Various factors impact students' ability to persist in achieving their education goals, including their academic preparedness, motivation, engagement, familial obligations, financial support, health, and employment status. This study focused on three main topics to address those issues: (a) student support and engagement strategies, (b) holistic retention models, and (c) leadership and organizational change. Structured interviews and a learning circle were the research techniques used in this action research project. COTR's Aboriginal students and leaders from the Aboriginal community were invited to share their perspectives and experiences to inform the recommendations for the holistic plan. The study findings indicated that an environment that reflects and acknowledges cultural worldviews and values, an education that is relevant to the student's future goals, and supportive relationships are all contributing factors to a student's sense of support and his/her ability to engage in the learning experience.

Sledge (2009) conducted study on A Plan to Span the Learning Gap: A Freshman Seminar class representing a holistic approach to education that seeks to enhance

students' mental, emotional, and physical well-being and to promote student retention. "A Plan to Span the Learning Gap" is a creative pedagogical exercise presented in a format designed to illustrate a lesson plan that covers two freshman college semesters. The plan is a holistic approach to spanning the gap that exists between the competencies outlined by the state and the deficiencies of students entering Freshman Composition classes. The plan emphasizes character building, physical fitness, expression of ideas through various media, and ultimately, competency in composition and reading comprehension through the careful selection and sequencing of assignment prompts. The plan takes a scaffold approach to the examination of a variety of texts including the student's own writing which can be enhanced through positive feedback and formative evaluation techniques that stress self-evaluation.

Văcărescu-Hobeanu (2013) conducted study on Human resources management has been more and more outlined as a field of theoretical concerns and pragmatic undertakings, with an ever-expanding book of concepts, principles, methods and specific techniques, of apparent sophistication and scientific interest. The premise that human resources' management is based on consists in the assumption that people expect more from their workplace than only financial rewards; hence, employees expect employment and professional security, a humane treatment, a richer social life. Man aspires towards social recognition and creativity as it is the essential representation form of human freedom. The holistic approach to the management of human resources in universities becomes useful when the university is an institution for training and education and it becomes an integral part of a sustainable society.

2.2. Studies conducted in India

2.2.1. Studies related to Wholistic Education

Asha (2008) conducted a study on wholistic education through folk arts: preparedness of student- teachers to teach with 'folk song mixed patterns.' The objectives of the study were, (1) To collect the critical review of simulated practical constructions exploiting the educational potentiality of folk songs. (2) To find out the preparedness of student teachers to teach with 'folksong mixed patterns'. (3) To collect suggestions for integrating more folk art forms in different academic subjects. She has done this study in two phases: preparation of 'folksong mixed patterns' for teaching selected

content area of school subjects from the first part of the study. The second part is assist in bridging the gap that often exists between education researchers, theorists and practicing teachers. The preparedness of teachers to teach with the 'folksong mixed pattern' determines the viability of practical application in classrooms. In order to know preparedness of the student- teachers the researcher has prepared a 'preparedness scale' (closely resembling Likert type Attitude Scale). The study was analysed by the review schedule by taking percentage of the scores in each section. For the analysis of 'preparedness scale', descriptive statistics like mean and standard deviation of the entire sample were calculated. The inferential analysis was done by the critical ratio.

Parekh (2012) conducted a study on Designing, Developing and Implementing a Wholistic Science Education Program at Secondary School Level. The objectives of the study were (1) To design and develop a Wholistic Science Education Program (WSEP). (2) To study the effectiveness of WSEP in terms of cognitive development of students. (3) To study the effectiveness of WSEP in terms of affective development of students. (4) To study the effectiveness of WSEP in terms of development of psychomotor skills. (5) To study the effectiveness of WSEP in establishing environmental sensitivity. (6) To study the effectiveness of WSEP in developing life-skills among students. (7) To study the effectiveness of WSEP in terms of spiritual development of students. The study employed both the quantitative and qualitative designs. For objectives two, three, four, five and six control group – experimental group post test design was employed, whereas, for the remaining objectives qualitative techniques, namely, content analysis was employed. It was conducted in two phases: Development of WSEP and Implementation of the program. Sample of the study was students of standard IX Gujarat Secondary and Higher Secondary Education Board (GSHSEB). Tools employed for the study were Content test, Value Inventory, Activity based test and Demonstration Observation Scale, Environment Sensitivity test, Life Skill Inventory and Spirituality test. Data Analysis techniques employed for the study were ANCOVA, Chi-square and Content Analysis. Major findings of the study were 1) the WSEP had resulted into significant cognitive development. 2) Both the groups i.e. control group and experimental group had been found to be on the higher side on the Affect Attributes. 3) The Experimental group had been found to have better demonstration skills than the control group. 4) Both the

groups i.e. control group and experimental group had been found to be on the higher side on the Environment Sensitivity. 5) Both the groups i.e. control group and experimental group had been found to be on the higher side on the Life Skill development. 6) The Experimental group had been found to have significantly greater spiritual development than the control group. 7) Overall the WSEP had been found to be more effective in the Wholistic Development of the Experimental group than that of the Control group.

Sarangi & Mishra (2008) conducted a study on effect of Learning Continuum Resources (LCR) in promoting wholistic learning in multi-grade teaching contexts. Objectives of the study were, (1) To study the effectiveness of learning continuum resources in promoting interpersonal relation among the children, (2) To examine the emotional development of the children in terms of shyness, fearfulness and approaching to classmate and teacher, (3) To assess the effectiveness of the LCR in developing achievement of class-II children in Mathematics in terms of MLL competencies. Three points rating scale for the class teacher to rate shyness, fearfulness and approaching to classmates and teacher was used. Students interview were conducted to record information on interpersonal relationship among peer. A criterion referenced test on the MLL competency underlying the milestone was taken up for the study. The major findings of the study were that there is a real association between school effectiveness and organization of learning as overall and in terms of teacher-students interaction, student-student interaction and teaching activity. It also observed that LCR approach encourages emotional development of children to minimise shyness fearfulness and facilitating students in putting questioning, talking to the other students and sharing experiences with friends and teachers.

2.2.2. Studies related to Wholistic Development

Gandhi (2011) published a paper -Seven fold sustainability for ensuring a holistic life in contemporary India: Role of higher education. The Investigator has suggested the sevenfold for sustainability in the modern age of competition and knowledge. The sevenfold are 1. Environ sustainability, 2. Biological sustainability, 3. Social sustainability, 4. Cultural sustainability, 5. Economic sustainability, 6. Political sustainability, and 7. Moral-Spiritual sustainability. To realize these seven folds the Investigator has suggested changes in higher education system

- Higher education has immense man making potential in itself. Therefore, the existent system of higher education needs to be reshaped step by step and build up new nurseries of terming out highly sensitized, conscientious young men and women who will be the torch bearer of seven fold sustainability to make life the holistic phenomenon.
- The present crucial step could be – changing the present mono track, status quoits and insipid system into a cross disciplinary, vibrant adventure.
- The same need is also highlighted by UN that the higher education should be Trans disciplinary. UN has given 40 knowledge areas for cross disciplinary. On the basis of that the gradual changes in curriculum is needed.
 - Phase – I Infusion of sustainability elements in the subject of present syllabus of the curriculum in vogue keeping everything else untouched.
 - Phase – II Implementation of a multi disciplinary approach based on the subject areas suggested by the UN agency with a provision for selected inter disciplinary applications.
 - Phase – III Evaluation of a full-fledged cross disciplinary curriculum and the strategy for its transactions.
- The basic degree of three program of cross disciplinary type may have the following components.
 - Component – 1: Knowledge including its generation, dissemination, deployment, storage, retrieval and reform.
 - Component – 2: Values including those of sustainability and of all the diverse departments of life and work.
 - Component – 3: Skills and Competences that should contribute to the formation of the life of a ‘Whole man’.
- The measures will need to be undertaken are;
 1. Developing an articulate and comprehensive design of the objective of teaching academic subjects in context of social goals, including that of the sevenfold sustainability.
 2. Identifying cross disciplinary and cross sustainable areas of study and critical points of interpretation among them.

3. Designing capacity building program for different participants in the system of higher education.
4. Developing a program of teaching – learning task to be carried out in classrooms in the world work.
5. Preparing plans of acquiring teaching – learning materials, preserving them and using them for specific task.
6. Evolving projects for the institutions – society collaboration to implement the cross disciplinary curriculum.
7. Putting in place well designed mechanism of appraisal and audit of the programs and the personal involvement.
8. Preparing schemes for resources generation management so as to make the enterprise of higher education economically productive.
9. Suggesting a comprehensive and overarching management system of the entire enterprise, a policy of inclusive in house research ability, its reporting, follow up and related public relation initiatives.

Pathak (2008) conducted a study on integration of life skills in the pre-service teacher education: lessons from an experiment. The objectives of the study were, (1) To orient the B.Ed. trainees about ten core life skills identified by World Health Organization (WHO) and their role in wholistic development of an individual. (2) To enable the trainees for identification of life skills from the contents of different school subjects. (3) To orient the trainees for integration of life skills in teaching-learning process during their practice teaching phase. The major findings of study were, promotion of life skills among the students by various means, will lay foundation for a better education system and a healthy society tomorrow. Integration of life skills, as an approach is comprehensive with respect to the general objectives of the curriculum at school level.

2.2.3. Studies related to Wholistic Approach

Paliwal (2008) carried out study on the wholistic approach to English language teaching: A survey cum experiment. The study was carried out by keeping in view the theoretical discussion cum hypotheses needs to be supported by some empirical evidence for making it a strong case for dissemination of the idea in question. By the researcher a survey was conducted on B.Ed. students with a view to finding out

whether they favoured the idea of relativism in life, education and pedagogy. The samples were involved in 'pre-wholistic discussion survey' conducted through a brief questionnaire. Then by the researcher intervention was provided to the samples and they were involved in 'post-wholistic discussion survey, through the same questionnaire which was given for pre-wholistic discussion survey. The major finding of the study was, there is a significant difference between the views of the respondents generated through the pre wholistic discussion and post wholistic discussion. The study was conducted on small sample so the results may not be generalised. So the researcher has suggested for further study to conduct study on bigger population.

2.3. Review of Related Studies: Emerging Scenario

Investigator and year of the study	Focus of the study	Design of the study	Sample of the study	Tools/Techniques used in the study	Findings of the study
Merritt 1994	differing conceptions of modern and post-modern secondary-science education	Qualitative design	Science educators (N=25) and inter-disciplinarians (N=23)	Modified Delphi technique, multiple rounds of questioning and feedback	<ul style="list-style-type: none"> Abandonment of current, traditional educational structures & creation of new learning systems. Re-conceptualization and redefinition of Science achievement, rejection of the traditional, subjects-centered curriculum design. Replacement of compartmentalized science courses with interdisciplinary, integrated ones.
Macklin 1997	Enhancing Wholeness, Creativity and	Flexible design	A group of people - a wide range of grade	Model for transformational learning	<ul style="list-style-type: none"> The wholistic paradigm offers us a larger context, a spiritual and ecological perspective which honours our wholeness

	Connections in the Classroom		levels, from preschool to high school, and specialties, from teachers to speech therapists, a special education teacher, and a librarian.		and humanity. An education grounded in this paradigm holds a dream for the future.
Conti 2002	Holistic Education and holistic perspective of teachers	Portraiture methodology	4 Teachers represented four fields within wholistic education: Waldorf education, Quaker Friends education, Parker Palmer's Courage	Interviews, curriculum document collection, classroom observation and descriptive storytelling around artifacts.	<ul style="list-style-type: none"> • Wholistic Education emphasizes the idea of connectedness. • Participants' spiritual wisdom is used as source of insight in pedagogy. • Participants demonstrate a wholistic view of education that is grounded in their own wholistic growth. • Participants view teaching as both sacred and a calling, Participants

			to Teach Program and Rachael Kessler's Soul of Education passages program		believe that much of their success is dependent on their own authenticity as whole persons.
Borowski 2003	Holistic Approach	Action Research	Pre-service Elementary Teachers	Inquiry oriented practice for reflection	<ul style="list-style-type: none"> • A holistic approach to teaching and learning must be widely adopted if teachers are to act from a place of wellness. • The long-term benefits of structuring teacher preparation around the holistic process are apparent: the well-being of teachers who have strong professional and personal identities and who have the skills and experience to foster well-being among their own students.
Enns 2003	Theoretical Model of Mutuality: Holistic	Philosophical and	East Asia (East) – holistic cognition	interdisciplinary study philosophy of science,	<ul style="list-style-type: none"> • Mutuality is dynamic. It may take on many nuances. The nuances that is

	and Analytical Cognition	Historical study, Explorative study on cultural mutuality	and European-America (West) – analytical cognition	psychology, and theology study of cultural variations of reasoning, empirical research, <i>formal</i> data—hypothetical, abstract, and un-visual sable, <i>material</i> research—stemming from direct observation	<p>universalism without uniformity, being aided by the “other,” cycling through differences, and going back and forth between differences.</p> <ul style="list-style-type: none"> • Mutuality in reasoning is made possible through the use of a critical realist epistemology, which implies that truth is pursued within hermeneutical communities.
Male Kpour 2003	Holistic Science: Science Education encompassing Ethical and Social Issues	Action research and explorative study	Science education students of National-Louis University	Pedagogical Model, perception of learner, group discussion, focused group discussion, field notes, final class evaluation and class documents	<ul style="list-style-type: none"> • Learners can better understand the decision-making process and more easily relate their experiences, and therefore their knowledge, to social/political and ethical issues.

Forbes & Robin 2004	Wholistic Education	Survey	School students	Questionnaire	<ul style="list-style-type: none"> • Many common phrases, such as, freedom, experiential learning, love, and community were being used in a variety of ways and contexts, often pointing toward somewhat different phenomena.
Morris 2005	Whole School Initiative (WSI)	Longitudinal Case Study	Casey Elementary School one state-level WSI official, former and present principals, the present project director, teachers, teacher assistants, office personnel, the	Student performance/achievement, Important events in the life of the school (art celebrations), Changes in school demographics (i.e., parent involvement, racial composition, struggles and conceptions of employees, attendance	<ul style="list-style-type: none"> • Curriculum mapping supports much-needed long-range planning, short-term preparation, and clear communication among school personnel for a better education with a scope and sequence for children. • The arts held a special place on the mapping forms, and the arts specialists collaborated with the regular teachers to place the arts into all subjects. • Teachers' overall attitudes concerning the affects of the implementation of the

			district personnel recruiter and parents	and discipline) and Recruiting and retaining certified personnel	<p>Whole Schools Initiative. A strong positive trend in regard to the importance quality training for administrators and teachers, a growing sense of importance in regards to collaboration between teachers and arts specialists, as well as an importance of educating the “whole child” in and through the arts.</p> <ul style="list-style-type: none"> • Teachers take the arts to heart and make teaching and learning through the arts a vehicle for growth, not for test scores, but for the “whole child.
Robbins 2005	Benefit of care/coaching, connection/inspiration and enrichment	Descriptive	Employees of Wholistic Workplace Ministry	“Wholeness at Work” Models	<ul style="list-style-type: none"> • Wholistic Workplace Ministry is a visionary model designed to facilitate life-enhancing Care/Coaching, Connection/Inspiration, and Enrichment for employees in the workplace. • The model is grounded in an

					<p>understanding of human psychosocial development (Robert Kegan) and ethical culture development (Edward L. Ericson). Successful implementation of the model requires careful assessment of an organization's readiness for the model, including the leadership's commitment, and the potential synergy with the organization's demographics and culture.</p> <ul style="list-style-type: none"> • In the future, Wholistic Workplace Ministry must partner with those who are working to wholistically redesign the infrastructure of the workplace, thereby enabling and enhancing the ongoing growth and integration of wholistic values and behaviours in the workplace.
Silva	Holistic Approach	Action	Students	Structured interview	<ul style="list-style-type: none"> • An environment that reflects and

2005		Research			acknowledges cultural worldviews and values, an education that is relevant to the student's future goals, and supportive relationships are all contributing factors to a student's sense of support and his/her ability to engage in the learning experience.
Xu 2005	Whole theme Instruction	Mixed-Method Study	three instructions and 96 students	interview and videotaped lessons revealed three distinguishable approaches, varying over all in direct, elective and integrative levels of wholetheme instructions	<ul style="list-style-type: none"> • The employment of whole theme instructions enhances the student's outcomes. This study has special significance in the field of education and psychology.
Kelly	Wholistic Educational	Narrative Portraiture as	The Waldorf School students	Portrait of an artists, inquiry	<ul style="list-style-type: none"> • The imagination acts as a powerful and critical agent for catharsis and enables

2006	Perspective	inquiry and examine the live experiences			<p>the creative acts of the artist to create a crucial crucible for becoming of artist.</p> <ul style="list-style-type: none"> • This study makes significant contributions to the fields of wholistic education, arts education, transformative learning, teacher development and art-based methodology.
Kim 2006	Whole Child Development	Ethnographic study	teachers, children, parents and a state official of an American public school	classroom observation, audio-video recordings of classroom lessons, field notes, photograph, document collection and interview	<ul style="list-style-type: none"> • One salient theme highlighted is the variety of ways the ESL class under investigation addressed the children's linguistic, academic/cognitive and emotional needs in a balanced way. • The class served not as an isolated language laboratory but as a site addressing the children's diverse changing needs. • Classroom practices used to promote

					<p>linguistic development also supported integration of the children's socio-cultural, individual resources, quality teacher-student interaction and cooperative learning, to foster academic/cognitive development, academic content was incorporated into ESL instruction and to encourage emotional development, the class functioned as a care provider when needs arose.</p>
<p>Lim 2006</p>	<p>Whole-task instructional approach</p>	<p>quasi-experimental</p>	<p>51 undergraduate students of a large south-eastern university in the United States</p>	<p>quantitative data was collected for each of the following outcome measures: a) performance (achievement & transfer), b) cognitive load, c)</p>	<ul style="list-style-type: none"> • The findings of the study suggest that the use of a whole-task instructional approach based on the 4C/ID-model (van Merriënboer, 1997) may facilitate the acquisition and transfer of a complex cognitive skill. • the whole-task instructional approach was more effective in terms of learner

				instructional efficiency, d) time on task, and e) attitudes	performance on the whole-task achievement test and far-transfer test than the part-task instructional approach.
Shneyder 2006	A Holistic Approach to Biology Instruction	quasi-experimental research design	two sections of BIOL 1120 (General Biology)	holistic instruction using the Lubichev approach, pre-test, post-test	<ul style="list-style-type: none"> • A statistically significant difference was found in favor of the group that experienced wholistic instruction.
Grimes 2007	Multidimensional Classroom and Wholistic Education	Philosophical study	School	categories of organizational structures, learning styles, curriculum design, instructional techniques, and assessment strategies	<ul style="list-style-type: none"> • There are specific and analytically distinct gaps in the wholistic education research base. In detailing these gaps (as well as specific strengths) it becomes possible for the wholistic education movement to more clearly and with greater focus develop short- and long-term research agendas.
Larimer 2008	Whole Person	Survey	Participants in Innate Health	Two self-report scales (Understanding of	<ul style="list-style-type: none"> • The concept of Authentic Education was suggested as an appropriate

			Seminars	Experience Scale and Lifestyle Assessment Scale)	theoretical frame work for incorporating models such as Innate Health as a part of a comprehensive approach to educating the whole person.
Asha 2008	Wholistic Education	Pre-Experimental	Students and Teachers	Attitude Scale	<ul style="list-style-type: none"> • This study found significance effectiveness in wholistic education through folk arts.
Osment 2008	Wholness	Philosophical study	Work of psychologist Carl Jung	Explorative Study	<ul style="list-style-type: none"> • What are we missing in our lives and congregations today is wholeness. Our disconnection lies not on the outside but in the inside. • This is in turn leads to a lack of balance and the development of both psychological and spiritual problems.
Paliwal 2008	Wholistic Approach	Small Survey	B.Ed. Students	Questionnaire and discussion survey	<ul style="list-style-type: none"> • There is a significant difference between the views of the respondents generated through the pre wholistic discussion and post wholistic

					discussion.
Pathak 2008	Integration of Life skills	Experimental	B.Ed. trainees	Intervention program	<ul style="list-style-type: none"> Promotion of life skills among the students by various means, will lay foundation for a better education system and a healthy society tomorrow. Integration of life skills, as an approach is comprehensive with respect to the general objectives of the curriculum at school level.
Rudge 2008	Holistic Education	Philosophical and interpretative study	holistic education movement in four approaches to schooling	Identification of pedagogical features across the selected school systems, examination to the way and the extent by which they are applied. Comparison of the findings of all pedagogical feature	<ul style="list-style-type: none"> There are tensions in accommodating pedagogically the spiritual and humanistic principles of wholistic education in one approach to education. Further some of these tensions were examined across the four selected approaches to schooling.

				s to determine the extent to which each principle is applied in each of the pedagogical approaches to schooling	
Sarangi & Mishra 2008	Wholistic Learning	Descriptive	School Students and Teachers	Rating Scale and Interview	<ul style="list-style-type: none"> • There is a real association between school effectiveness and organization of learning as overall and in terms of teacher-students interaction, student-student interaction and teaching activity. • It also observed that LCR approach encourages emotional development of children to minimise shyness fearfulness and facilitating students in putting questioning, talking to the other students and sharing experiences with friends and teachers.

Benson 2009	Wholistic Development and Whole Person	Mailed survey	College Educators and Business Professionals in the south-eastern region of the United States of America	Questionnaire	<ul style="list-style-type: none"> The findings identified character, judgment, and moral reasoning as the core affective dimensions of the whole person that should be considered imperatives as goals or learning outcomes at four –year’s colleges and universities.
Hooten 2009	Holistic scoring with implications for dysgraphia	Descriptive study	children in grades 3 through 6	223 compositions	<ul style="list-style-type: none"> Handwriting legibility and spelling accuracy yielded varying results in different grade levels.
Neves 2009	Holistic Approach to the Ontario Curriculum	interpretive form of qualitative research	personal experiences as a holistic educator in a public school	educational connoisseurship and criticism	<ul style="list-style-type: none"> The research findings will serve to inform teachers who wish to engage in wholistic education in public schools and adopt a curriculum that is transformative while still being adaptable within mainstream education.
Norris	Holistic Approach to Teacher Reflection	multiple-case study design	Teachers	ethnographic techniques, classroom	<ul style="list-style-type: none"> The practice of teacher reflection and reflective dialogue as professional

2009	about Practice			observations followed by a reflective dialogue	development and for educational research.
Pearsall 2009	Human Development	Quantitative two-stage survey designs	college professors, legislator, superintendent, principal, and teacher	in-depth interviews and free response questionnaires	<ul style="list-style-type: none"> • A whole person education model developed from these findings is introduced and implications are discussed in terms of socio and structural change, teacher education and instructional change, and educational leadership change.
Sledge 2009	Holistic Approach	Explorative study	Two freshman college semester students and teachers	A plan to Span the Learning Gap	<ul style="list-style-type: none"> • The plan takes a scaffold approach to the examination of a variety of texts including the student's own writing which can be enhanced through positive feedback and formative evaluation techniques that stress self-evaluation.
Burnett 2010	Holistic Approach to Creative Problem	Qualitative research	100 alumni, students,	Questionnaire	<ul style="list-style-type: none"> • The field of creativity become more inclusive and to engage with the whole

	Solving		professors, and visiting professors of the International Center for Studies in Creativity		<p>range of human problem solving approaches and experiences.</p> <ul style="list-style-type: none"> • Human beings are not divisible into neat conceptual blocks. • We are complex, multi-faceted, holistic beings, and the structure of both our knowledge and teaching processes needs to reflect this. Intuition will be the mechanism to help us reach this goal.
Karmer 2010	caring and creativity	Explorative study	Six teachers in three Colorado and three Western Australian schools and 25 students	Semi-structured interview, Observation and Photo essay	<ul style="list-style-type: none"> • It facilitated the development of interpretations, thematic and evaluation that inform understanding and enhance ability to help students within visual art and other content area. • The addition of photo essay was based on recent support for having participants' utilized metaphor through

					photographic image to more effectively express their feelings, beliefs, and interpretations.
Gandhi 2011	Seven fold sustainability for ensuring a holistic life in contemporary India: Role of higher education – a Paper	----	----	----	<ul style="list-style-type: none"> • The sevenfold are 1. Environ sustainability, 2. Biological sustainability, 3. Social sustainability, 4.Cultural sustainability, 5. Economic sustainability, 6. Political sustainability, and 7. Moral-Spiritual sustainability. • To realize these seven folds the Investigator has suggested changing the present mono track, status quoits and insipid system into a cross disciplinary, vibrant adventure.
Parekh 2012	Wholistic Science Education Programme	Quasi Experimental design	Students of standard 9	Content test, Value Inventory, Activity based test and Demonstration	<ul style="list-style-type: none"> • The WSEP had resulted into significant cognitive development. Both the groups i.e. control group and experimental group had been found to be on the

				<p>Observation Scale, Environment Sensitivity test, Life Skill Inventory and Spirituality test</p>	<p>higher side on the Affect Attributes.</p> <ul style="list-style-type: none"> • The Experimental group had been found to have better demonstration skills than the control group. • Both the groups i.e. control group and experimental group had been found to be on the higher side on the Environment Sensitivity. • Both the groups i.e. control group and experimental group had been found to be on the higher side on the Life Skill development. • The Experimental group had been found to have significantly greater spiritual development than the control group. • Overall the WSEP had been found to be more effective in the Wholistic
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					Development of the Experimental group than that of the Control group.
Piccone 2013	Holistic Approach to College Developmental Reading and English Course	Experimental study	143 students	qualitative questionnaire, students' perceptions on teaching models provided feedback on instructional strategies	<ul style="list-style-type: none"> • The results of the qualitative findings indicated that the intervention group valued the importance of computer-assisted instruction, small-group learning, and the relationship between class and lab learning. • The control group indicated greater value in classroom learning.
Rathnam 2013	Whole Teachers: Education Perspective on Krishnamurti's Educational Philosophy	Qualitative research study	Four teachers from Oak Grove School	Phenomenological inquiry method	<ul style="list-style-type: none"> • This inquiry reveals the awareness that exists among the participants with regards to their understanding of Krishnamurti's educational philosophy and the way in which this philosophy has shaped their lives and the lives of their students (both implicitly and explicitly).

					<ul style="list-style-type: none"> • Krishnamurti's philosophy has certainly had an impact on the participants' wholeness. • Krishnamurti was never interested in imposing his philosophy on the teachers to think in a narrow groove. The possible ways in which wholeness can be developed using: Innate wisdom (teachers' inner life, teachers' calling); wisdom gained through experiencing life (teachers' life, teachers' thinking); wisdom gained through their teaching experience (teachers' pedagogy) and wisdom gained through practices that bring harmony to the mind, body and spirit (teachers' contemplative approaches).
Văcărescu-Hobeanu	Human resources management	Theoretical study	book of concepts, principles,	theoretical concerns and pragmatic	<ul style="list-style-type: none"> • The holistic approach to the management of human resources in

2013			methods and specific techniques, of apparent sophistication and scientific interest	undertakings	universities becomes useful when the university is an institution for training and education and it becomes an integral part of a sustainable society.
Johnson 2014	Holistic Pedagogical Approach	Qualitative Single Case Study	instructors and students over the age of 18	classroom observation and interviews	<ul style="list-style-type: none"> The current study will explore holistic pedagogy to determine whether it prepares learners for modern society.
McMullin 2014	Holistic Development of Teachers	Explorative study	Pre-service Teachers	classroom observations and write up detailed field notes	<ul style="list-style-type: none"> The goal would be to support the wellbeing, renewal and sustainability of teachers through a holistic approach to teacher education and ongoing professional development.

Table 2.1.: Emerging Scenario of Reviewed Related Literature

2.4. Implications of Review Related Literature for the Present Study

The researcher attempted to review literature related to Wholistic Education, Wholistic Development and Wholistic Approach. Studies related to Wholistic Education were conducted by Conti (2002) on The Spiritual Life of Teachers, Enns (2003) on Holistic and Analytical Cognition, Forbes & Robin (2004) focusing on An Analysis of Holistic Schools'. Grimes (2007) studied on Multidimensional Classrooms, Kelly (2006) carried out study on Development of soul-spiritual capacities and personal transformation, Larimer (2008) conducted a study on awareness of dynamics of thought through Innate Health approach, Macklin (1997) has conducted study on Enhancing Wholeness, Creativity, and Connections in the Classroom, Malekpour (2003) focusing on Holistic Science Education, Merritt (1994) conducted a study on Transforming Secondary-Science Education for the 21st Century, Morris (2005) has conducted a study on The Whole School Initiative, Rathnam (2013) conducted a study on A Holistic Education Perspective on Krishnamurti's Educational Philosophy Rudge (2008) has integrated humanistic education with spiritual philosophical ideas to define Wholistic education, further, the principles of wholistic education have been synthesized in eight broad principles, namely, spirituality, reverence to life, interconnectedness, human wholeness, individual uniqueness, caring relations, freedom and democracy, and Xu (2005) conducted a study on Levels of Wholetheme Instruction. Asha (2008) had conducted a study on student teachers and developed folk song mixed pattern for selected content area of school subject, Parekh (2012) conducted a study on Wholistic Science Education Program at Secondary School Level, and Sarangi & Mishra (2008) have conducted a study for promoting wholistic learning.

Benson (2009) has studied the core affective dimensions of the whole person for Wholistic development, Hooten (2009) has found relationship between holistic scoring and written language abilities, Karmer (2010) conducted a study on An exploration of caring and creative visual art classrooms, Kim (2006) focused on ESL Education for whole child development, Lim (2006) conducted a study on Effect of Part-task and Whole-task instructional approaches, McMullin (2014) conducted a study on The Holistic Development of Teachers: A Conceptual Model of Integrative Education and Pilot Program for Pre-service Teachers Based on Mindfulness and

Social Emotional Learning, Osment (2008) conducted a study on Spiritual and wholeness, Pearsall (2009) conducted a study on Reframing human development in public education, Robbins (2005) carried out a study on Wholistic Workplace Ministry (WWM), Gandhi (2011) has suggested Seven fold sustainability for ensuring a holistic life in contemporary India, Pathak (2008) conducted a study on integration of life skills in the pre-service teacher education had focused on Wholistic Development.

Borowski (2003) has conducted a study on A Holistic Approach to Teacher Education, Burnett (2010) conducted study on Holistic Approaches to Creative Problem Solving, Johnson (2014) conducted a study on Twenty-first Century Transformation: A Holistic Pedagogical Approach, Neves (2009) conducted a study on A Holistic Approach to the Ontario Curriculum: Moving to a more Coherent Curriculum, Norris (2009) a Holistic Approach to Teacher Reflection about Practice, Piccone (2013) A Holistic Approach to College Developmental Reading and English Courses, Shneyder (2006) conducted a study on Holistic Approach to Biology Instruction, Silva (2005) conducted study on A Holistic Approach to Student Support and Engagement, Sledge (2009) conducted a study on A Plan to Span the Learning Gap: A Freshman Seminar class representing a holistic approach to education that seeks to enhance students' mental, emotional, and physical well-being and to promote student retention conducted studies on Wholistic Approach, Văcărescu-Hobeanu (2013) conducted study on Human resources management, and Paliwal (2008) conducted survey cum experimental study on B.Ed. students on Wholistic Approach for English language teaching and found significant difference.

It is evident through the related literature that there have been very rare studies on Wholistic Approach to Educational Instruction for Wholistic Development The review of the related studies reveals that there is a need of wholistic approach in School Education and Teacher Education for Wholistic Development. Wholistic approach has been used in teaching learning process of English Language, Biology Instruction, and Science Education. There have been found rare studies on Wholistic Approach to Science Instruction. One study has been conducted on Wholistic Approach to Science Instruction at the School level. It is evident from the field that Lesson Designs for Practice Teaching at Teacher Education levels have been limited only to Cognitive Domain, at the most Psychomotor Domain. There are rare lessons

addressing Affective Domain, Environmental Domain and Spiritual Domain. Both, the Teacher Educators & Student Teachers feel diffident entering affective domain. The various disciplines have gone conservative & closed not to open up to the environment. There is a notion that the Spiritual Domain is not the concern of Formal Education. There are very rare lessons which relate lesson design contents in a particular subject with the other subjects, that is, interdisciplinarity finds rare expression in practice teaching. There is a need of immediate transformation in Practice Teaching focusing on the Wholistic Approach. Unless the teachers are Educated on Wholistic Approach in Teacher Education it will not find expression at the School Education. The investigator having Science background has attempted to employ Wholistic Approach to Science Education in Pre-Service Teacher Education to study its effectiveness at the School level.