CHAPTER – I
INTRODUCTION AND CONCEPTUAL FRAMEWORK

1.01 INTRODUCTION

   Education should bring radical changes in human life, attitude and behaviour. Children should be empowered to be global citizens with intellectual, scientific, social, cultural and human outlook. Education is not to cater to intellectual illumination alone. It should develop skills of problems-solving and social interaction to be inculcated and imbibed for the betterment of the individual and the society. Along with knowledge acquisition, education should direct towards the development of a myriad of desirable values like kindness, charity, tolerance, devotion to duty, self-confidence, truthfulness, honesty and non-violence. Harmonious integrated personality of the child is the ultimate aim of Education.

   Education should train the mind to think creatively bringing out the latent talents of the individual. It should further enlighten, equip and entertain the children to face the challenges of day to day life and changing situations. As Pandit Jawaharlal Nehru has said, “Children are like buds in the garden and should be carefully and lovingly nurtured as they are the future of the nation and citizens of tomorrow”. Education should be able to mould them and enable them to attain and achieve their goal.

   Swami Vivekananda says, “Education is the manifestation of perfection already in man”. Education is one of the major forces that elevate a man from the status of a social animal to a civilized human being. A school is a place where behaviour modification takes place, and at the primary level the teachers are doing this noble task of educating the young buds, the future kings and king makers of our nation. Today, a school is considered to be effective, only when it imparts the current updated knowledge, providing a conducive teaching-learning environment for inculcating good values among the students.

   Education plays an essential role in shaping the personality of an individual. Every society endeavours to make its citizens educated in the best possible manner.
Education is an integral part of human life. It is a basic condition for the development of the ‘whole man’ and serves as a vital instrument for accelerating the well-being and prosperity of all in every direction.

The principles of education (Dash, B. N. 2002) defines education as “the aggregate of all the processes by which a person develops ability, attitudes and other forms of behaviour of practical value in the society in which he lives, the social process by which people are subjected to the influence of a selected and controlled environment, especially that of the school, so that they may obtain social competence and optimum individuals development”.

The World Book Encyclopaedia (1989) describes education “as a process by which people acquire knowledge, skills, habits, values and attitudes. Education helps people to adjust to change. This benefit has become increasingly important because today social changes take place with increasing speed and affect the lives of more and more people. Education can help a person understand the changes and provide the skills for adjusting to them”. (p.85)

1.02 PRIMARY EDUCATION

A primary school, or elementary school, is a school in which children receive primary or elementary education between the ages of about five to eleven, coming before secondary school and after preschool. It is the first stage of compulsory education in most parts of the world, and is normally available without charge, but may be a fee-paying independent school.

The World Education Forum, held in 2000 set an ambitious goal: universal primary education by the year 2015. Schooling all children until they reach young adulthood is recognized as important because it leads to many substantial positive effects: better family health, lower birth rate, higher productivity, higher earnings, and improved economics of the country as a whole. Globally, however, more than 115 million children of primary school age do not attend school.

The constitution of India supports the right of universal education until age 14 and has had a long standing goal of free and compulsory education for all children between the ages of six and fourteen. However, India remarks a land of contradictions. Despite a vibrant emerging economy and a string of excellent colleges
that produce high calibre professionals, India has not make the grade yet on primary education. (Ranjani Iyer Mohanthi 2009)

1.02.1 Objectives of Primary Education

Tamilnadu Government suggested that the objectives of primary education are as follows:

- To provide elementary schools in hamlets where there are no schools
- To provide free and compulsory education for all children of age group 6-14.
- To provide eight years of schooling for all children before 2015.
- To eradicate dropouts before 2015 fully.
- To improve the quality of education from the pre-school to higher secondary school level.
- To eradicate illiteracy
- To open village libraries where there is a population of 5000 and above.
- To encourage health education in schools.

1.02.2 Goals of Primary Education

The goals of primary education are closely related to the goals of elementary education. Since elementary education is the first terminal point of the educational ladder, it may be observed that it is natural that a large number of students will leave the cadre of education at that very terminal point. This means that elementary education ought to provide to each student three important abilities arising from: a) adequate training of the heart, head and hand that would aid in the flowering of intelligence, power of imagination, and skills to utilize elementary tools that are used for productive and creative work; b) adequate understanding of the environment, knowledge of the preservation of health, and development of habits that would keep the body strong and fit, and responsible understanding of basic duties; and c) adequate capacity to practice virtues coupled with elementary science and art of learning to learn so that continuing education could be possible and practiced.
The primary education should achieve three minimum goals: a) adequate ability to read and write and sufficient capacity to do mental calculations in regard to arithmetical operations; b) development of various other faculties, capacities of comprehension, abilities of creative work and skills of productive work; and in respect of components of these capacities there should be no compulsion but a good deal of freedom and, therefore, correspondingly availability in the schools facilities and opportunities to exercise this freedom under the guidance of the teacher; and c) development of sense of wonder and curiosity and enthusiasm to learn more and more and to develop some mastery in respect of a few items of creative and productive work.

1.03 CREATIVITY

Creativity can be defined on a variety of levels: cognitively, intellectually, socially, economically, spiritually, and from the perspective of different disciplines within the arts, sciences, and humanities. All students in Wisconsin can develop their creative capacities if they have access to rich learning opportunities in environments that nurture and support their creative development. Creative thinking involves creating, something new or original. It involves the skills of flexibility, originality, fluency, imagery, associative thinking, attribute listing, metaphorical thinking and forced relationships. The aim of creative thinking is to stimulate curiosity and promote divergence. Gough said, “Perhaps most importantly in today’s information age, thinking skills are viewed as crucial for educated persons to cope with a rapidly changing world. Many educators believe that specific knowledge will not be as important to tomorrow’s workers and citizens as the ability to learn and make sense of new information.” Creative thinking is a novel way of seeing and doing things that is characterized by four components: (a) Fluency (generating ideas), (b) Flexibility (shifting perspectives easily), (c) Originality (consisting of something new), and (d) Elaboration (building on existing ideas).

1.03.1 Creativity in Children

Most teachers and educators may agree that all children or pupils are potentially creative. Creativity is present in every person, at least as potentials (Cropley, 1997). Creativity can be regarded as a natural part of every person’s mental
Creativeness may vary from one person to another, but a totally uncreative person does not exist (Downing, 1997). Accordingly, teachers and educators may acknowledge that enhancing creativity rests on the proposition that characteristics necessary for creativity can be helped to unfold in an appropriately stimulating learning. Children’s level of creativeness varies. Their creative potentials can be enhanced by deliberate encouragement, opportunity, and training, and can be traced back to a young age. As such, enhancing creativity can be carried out during everyday instructional time. The act of enhancing creativity has to be accompanied by continuous efforts.

1.03.2 Creative Way of Learning

Creativity is an elusive and contested concept. Every child is born with creative potential, but this potential may be stifled if care is not taken to nurture and stimulate creativity. Young children are naturally curious. They wonder about people and the world. Even before they enter primary school, they already have a variety of learning skills acquired through questioning, inquiring, searching, manipulating, experimenting, and playing. Children need opportunities for a closer look; they need time for the creative encounter. Creative learning is a natural human process that occurs when people become curious and excited. Children prefer to learn in creative ways rather than just memorizing information provided by teachers or parents. They also learn better and sometimes faster. (Sheila Nunan, 2009). According to UNESCO, “the encouragement of creativity from an early age is one of the best guarantees of growth in a healthy environment of self-esteem and mutual respect - critical ingredients for building a culture of peace.”

The term ‘creativity’ was widely used in the schools surveyed but there were variations in what was meant, ranging from an innate attribute to an approach and set of skills that could be cultivated. All the schools initially offered examples of ‘creativity’ in subjects commonly thought of as intrinsically creative, such as the visual and performing arts. However, when inspectors asked about ‘creative ways of learning’, examples were offered from most subjects across the curriculum. Teachers and senior leaders most confidently identified and evaluated creativity as an aspect of learning when it was translated into specific activities such as those set out by the Qualifications and Curriculum Authority’s (QCA) publication Creativity: find it,
promote it, rather than expressed as an abstract idea. Creative learning was widely understood to be characterised by:

- questioning and challenging
- making connections and seeing relationships
- envisaging what might be
- exploring ideas, keeping options open
- reflecting critically on ideas, actions and outcomes.

1.03.3 Importance of creativity

Creativity can contribute to solving almost any problem; it's not why something can't be done, it's how it can be done. It's helping diminish the student's anxiety about being different, allowing them to develop their creativity, identify their competencies and forge self-confidence without constant need for outside validation. Children's learning comes through discovery, making personal connections, integrating new information and creative application. (Stacia Garland, 2010)

**Creativity promotes emotional development**- Creative expression provides many opportunities for expressing emotions and working through those emotions to gain relief and understanding of them. To help your child do this you could encourage a child who is angry to draw or paint a picture of how they are feeling. You could play varied types of music that invoke different emotions and then ask your child how the music makes them feel.

**Creativity promotes social development**- In young childhood; creativity is often a social act. Singing, dancing, puppetry, and theatre all teach the child to pay attention to others as well as develop an understanding of social rules like give and take, and cooperation. Have a dance party with other children or have the child and their friends put on a play or puppet show.

**Creativity supports physical development**- Working with art materials such as crayons, scissors and paint brushes, promotes fine motor skills and eye-hand coordination. To promote gross motor skills try dancing, mural painting, theatre, or large construction projects like building things with boxes.
Creativity supports language and literacy development - By engaging in creative play or projects, children can learn new vocabulary words as well as learn to associate pictures with words. As mentioned above try playing different kinds of music and creating a conversation with the child about how it makes them feel; this will boost language expression and understanding. Expose your child to plenty of instruments and talk to them about their favourite one and what sound each instrument makes. Ask them open ended questions about their art work such as “how did you feel when you drew this” or “how does this painting make you feel?”

Creativity promotes cognitive development - Creative activities help children to develop attention skills and cognitive learning. Their imagination is in full use and it encourages them to come up with new ideas and to think outside of the box since creativity involves exploration and problem solving through creative activities. When children match shapes or colours in their creations they are learning the math skill one to one correspondence. Creative activities can help them learn about grouping and classification, physical properties of objects, and cause and effect. Painting and play dough are all great ways to explore these concepts.

1.03.4 Stages of Creativity

Preparation (the conscious state)

In this stage the aim is to acquire more information about the problem than you already possess. You might brainstorm, read, collaborate with others, gather your own past experiences, anything that can help you move towards solving the problem at hand. The stage of preparation may vary in length from a few minutes, as in the case of a brainstorming session, to months or years, as in the preparation for an invention or a crucial experiment where more research needs to be done.

Incubation (the subconscious state)

Stop thinking of the problem and turn your attention to anything else. Go for a run, a walk, play with your kids, read or maybe build that fence you have been meaning to finish. Do anything that stimulates your mind, but does not involve solving your problem. You are going to give your unconscious mind time to digest all the material you gathered in the preparation stage. This is the same principal used to solve “mental block” or “writers block”. The incubation stage can last from a few
minutes to years. For example, a writer working on a book may write for 4 days straight, then not write for months. After incubating, go back to your problem and begin crafting a solution or idea. At the end of this stage, the idea, which has been incubating, is more clearly defined than it was at the beginning. The stages of preparation and incubation might overlap, but that’s ok.

Illumination (The “Ahaaa!” Moment.)

This is where the idea, which has been incubating, assumes definite form. Better known as the “Ahaa! Moment”. This is the feeling you get when you have been struggling with your thoughts and can’t quite put your finger on what is missing. The idea will appear suddenly and comes with a feeling of certainty. You will typically have an emotional reaction of joy, knowing you have found an idea, a solution.

Verification

This is where you challenge the idea that came to you in the Illumination stage. Does your solution work and/or does it need revision? For example, a musician plays his composition on the appropriate musical instrument to see what notes and chords should be changed. (Jesus Ruvalcaba, March 23, 2014)

Developmental Stages of Creativity in Young Children

The following is a brief overview of the developmental stages of children’s creativity.

Scribbling stage, approximately 2 to 4 years

Children begin their drawing and modelling in a way that Lowenfield and others label "scribbling." It is the period of exploration before the eyes and hands are fully coordinated before the drawing represents a specific object or idea, before the drawing is named by the child, and before the subject of a drawing can be recognized or identified by teachers or parents. It is a time when muscular coordination is developing and when Children are trying to coordinate hand and eye activities. This is an essential stage in creative development. Children need the time, materials, and the encouragement to Scribble. Children would never learn to walk if we did not allow them to crawl first, or to Talk if we did not allow them first to babble.
Pre-Schematic Stage, late preschool to approximately age 7

At his period of development, children draw or model objects or figures which can be recognized or identified by adults. Now, drawings or modelling represent people, animals, houses, or trees, but not specific people, animals, houses or trees. There is a general quality to each figure or object. Each child's "man" looks about like every other "man" that she or he draws. Of course, each child develops a very personal style for "man" or "woman." In other words, Mary's man won't look like John's man, but all of Mary's men will be similar and all of John's men will be similar. This is a stage in which children are searching for a style (schema) or means to represent their ideas.

Characterization Stage

Following the period of generalized people and objects, the child begins to develop special characteristics for each person or object. The more creative and more observant children include numerous details with increasing accuracy, making it possible to identify and recognize specific people or objects. As more attention is focused on details, there may be a tendency toward "stiffness," or what appears to be a lessening of the earlier freedom of expression. And the children are becoming more consciously aware of their productions and much more critical of them.

Visualization Stage

As children reach the upper elementary grades, some, but not all, begin to focus more upon the actual visual appearance of an object, paying greater attention to the visual contour, to shadows and highlighted areas, to how colour changes if it is up close or in the distance. This stage is a move toward making the drawing "look-like," in the photographic sense the real object. Not all children have this special ability to see and record. Those who work this way should be encouraged but should not be singled out as the "talented" or serve as models for all others to follow.

1.03.5 Creative Capacities

Integrating creativity education into arts, academic, and training programs can help learners develop their creative capacities—the skills and attitudes that contribute to imaginative, creative, and innovative thinking. The creative process often involves
identifying a problem, exploring multiple solutions, and accepting the risk of failure as the best solution emerges. A base of disciplinary knowledge enables creative work.

**Creative Skills**

**Inquire**
- Pose questions that arise from curiosity.

**Find, Frame, and Solve Problems**
- Identify, articulate, and solve problems.

**Integrate Ideas**
- See patterns, find relationships, and make connections among ideas.

**Think Critically**
- Question, analyze, and synthesize ideas.

**Reflect**
- Contemplate and evaluate ideas.

**Take Action**
- Initiate action and follow through in bringing ideas to fruition.

**Collaborate**
- Work productively with others to bring ideas to fruition.

**Communicate**
- Express ideas in a variety of ways using a variety of media.

**1.03.6 Creativity in Primary Schools**

Creativity is an integral element of any primary classroom. It has been never more important for teachers to involve children in their own learning and provide a curriculum that motivates and engages. Being a creative teacher involves generating new ideas, reflecting upon and evaluating different teaching approaches, and establishing an environment that supports creativity in your pupils. (Juliet Desailly, 2012).
Enhancing Children’s Creativity

Enhancing pupil’s creativity has been regarded as important responsibility of teachers (Tan 2000) Teachers and educators should reflect upon factors that influence the trends in creative development. It is claimed that creative behaviour that hinders children’s creativeness include insisting that they do things the ‘right way’, asking them to be realistic and to stop imagining, making comparison among them, and discouraging their curiosity (Soh, 1997, Torrance 1990). A non-evaluative environment is essential as it can help remove ‘right answer fixation’ (Traffinger, 1983). Children’s creativity can be encouraged by exposing to a wide variety of stimulation, providing them opportunities to acquire information and materials and to combine and arrange them, giving children freedom to ask questions, disagree, experiment, and to do things that adults may regard as mistakes, and allocating sufficient time to maintain children’s spontaneity (Soh, 2001). It is believed that as young as four and a half years old, children master a variety of learning skills through questioning, inquiring, searching, manipulating, experimenting, and playing (Torrance, 1969). During this period, they seem to display creative behaviour. This creativeness among children seems to take off again gradually when they are in grades one to three (Torrance, 1964).

1.04 PHYSICAL FITNESS

Physical fitness is a general state of health and well-being or specifically the ability to perform aspects of sports or occupations. Physical fitness is generally achieved through correct nutrition, exercise, hygiene and rest. It is a set of attributes or characteristics that people have or achieve that relates to the ability to perform physical activity. Children who are physically fit absorb and retain new information more effectively than children who are out of shape, a new study finds, raising timely questions about the wisdom of slashing physical education programs at schools. (Gretchen Reynolds, 2013).

1.04.1 Benefits of Physical Fitness

Staying active means keeping one’s body functioning at a high level. Regular exercise will maintain the performance of lungs and heart to most efficiently burn off excess calories and keep weight under control. Exercise will also improve muscle strength, increase joint flexibility and improve endurance.
Another main benefit of physical activity is that it decreases the risk of heart disease, the leading cause of death. Additionally, it can decrease your risk of stroke, colon cancer, diabetes and high blood pressure. Regular exercise has been long associated with a fewer visits to the doctor, hospitalization and medication.

Exercising does not have to be something boring and dreaded. It can be something that one can enjoy that helps to increase the overall happiness in one’s life, as well as relieve symptoms of stress, depression and anxiety. Try to find some activities that give pleasure or even a buddy to do them with so that exercise is a fun and enjoyable activity.

1.04.2 Physical Fitness for Successful School Life

Parents and exercise scientists have known for a long time that physical activity helps young people to settle and pay attention in school or at home, with salutary effects on academic performance. A representative study, presented at the American College of Sports Medicine, found that fourth- and fifth-grade students who ran around and otherwise exercised vigorously for at least 10 minutes before a math test scored higher than children who had sat quietly before the exam. (Gretchen Reynolds, 2013).

Physical fitness is a basic requirement for good programmes in various achievements. Learning is, of course, a complex process, involving not only the taking in and storing of new information in the form of memories, a process known as encoding, but also recalling that information later. Information that cannot be recalled has not really been learned. This finding suggests that “higher levels of fitness have their greatest impact in the most challenging situations” that children face intellectually, the study’s authors write. The more difficult something is to learn, the more physical fitness may aid children in learning it.

“Reducing or eliminating physical education in schools, as is often done in tight financial times, may not be the best way to ensure educational success among our young people.” (Gretchen Reynolds, 2013). According to Bucher, ‘Physical fitness ‘is the ability of an individual to live a full and balanced life. It involved physical, emotional, social and spiritual and the capacity for their wholesome expression’.”
1.04.3 Main Components of Physical Fitness:

- Cardio respiratory endurance
- Muscular strength
- Muscular Endurance
- Body composition

Cardio respiratory Endurance:

Cardio respiratory endurance is the ability of the body's circulatory and respiratory systems to supply fuel during sustained physical activity (USDHHS, 1996 as adapted from Corbin & Lindsey, 1994).

Muscular Strength:

Muscular strength is the ability of the muscle to exert force during an activity (USDHHS, 1996 as adapted from Wilmore & Costill, 1994).

Muscular Endurance:

Muscular endurance is the ability of the muscle to continue to perform without fatigue.

Body Composition:

Body composition refers to the relative amount of muscle, fat, bone, and other vital parts of the body.

1.04.4 Physical Activity and Child Development

Play is essential to development because it contributes to the cognitive, physical, social, and emotional well-being of children and youth. Play also offers an ideal opportunity for parents to engage fully with their children. Despite the benefits derived from play for both children and parents, time for free play has been markedly reduced. Children today receive less support for play than did previous generations in part because of a more hurried lifestyle.
• Physical activity reduces fear, anxiety, stress, irritability
• Creates joy, intimacy, self-esteem and mastery not based on other’s loss of esteem
• Improves emotional flexibility and openness
• Increases calmness, resilience and adaptability and ability to deal with surprise and change
• Play can heal emotional pain.

1.04.5 Social Benefits of Physical Activity

• Increases empathy, compassion, and sharing
• Creates options and choices
• Models relationships based on inclusion rather than exclusion
• Improves nonverbal skills
• Increases attention and attachment

1.04.6 Physical benefits of Physical activity

• Positive emotions increase the efficiency of immune, endocrine, and cardiovascular systems
• Decreases stress, fatigue, injury, and depression
• Increases range of motion, agility, coordination, balance, flexibility, and fine and gross motor exploration

Targeting children’s pattern of physical activity is especially important given the argument that physical activity in childhood serves as the foundation for a lifetime of regular physical activity. Physical activity is also an ideal focus because it has many other benefits in addition to body weight regulation and improving body composition such as psychological and social well being, moreover, even in childhood, physical activity is closely linked to other health behaviour. This association suggest that physical activity plays a role, not merely in development of childhood obesity, but also in numerous health consequences, lifestyle patterns and psycho-social well-being.
1.05 CREATIVITY RELATED TO PHYSICAL FITNESS

Physical fitness is not only one of the most important keys to a healthy body; it is the basis of dynamic and creative intellectual activity

- John f. Kennedy

A potential relationship of fitness to cognitive functioning may be explained by both physiological and psychological mechanism (Chomitz, Slining, McGowan, Mitchell, Dawson, and Hacker, 2009) as physical activity stimulates neural development (Studenski, Carson, Fillit, Greenough, Karamer, and Rebok, 2006) enhances circulation, increases blood flow to the brain and raises levels of norepinephine and endorphine— which collectively may decrease stress, improve mood, stimulate a calming effect after exercise, and as a result possibly improve academic performance ((Taras, 2005, Fleshner, 2000 and Morgan, 1994).

Educational and health professionals have intuitively believed that individuals who are physically active and fit perform better in school. Several studies documented a positive relationship between physical fitness and cognitive performance measures (California Dept of Education, 2001, Maynard, Coonan, Worsley, Dwyer and Baghurst, 1987). Other cognitive research has recently linked aerobic fitness to improvements in neuroelectric and behavioural performance of children during a stimulus discrimination task (Hillman et al., 2005). The findings suggest that higher fit children exhibited greater allocation of attention resources to working memory, supporting previous research examining fitness and cognition in adult populations (Kramer and Hillman, 2006). Sibley and Etnier (2003) conducted a meta analysis, which confirmed that a small but significant relationship between physical activity and cognitive performance existed in school-age children. This findings revealed that physical activity may be beneficial to cognitive health in children, with the largest effects found for IQ and academic achievement. While there has been research linking physical activity in children with the development of sensory-motor integration, there has been little research in children examining the relationship between physical activity and attention or other aspects of cognition.

Creativity is a much sought after and encouraged thought process. (Sutton, 2001) Creativity is informally considered, for instance, to play a key role in the initial attractiveness, and sustained competitiveness, of many organizations. Research on this
aspect of cognitive functioning has often found a positive relationship between physical exercise and creativity. Gondola and Tuckman (1985) tested the effects of an exercise program, measuring differences at the completion of the program before an individual bout of exercise. The study therefore tested fitness rather than acute exercise and reported small but significant gains in creativity measures of Alternate Uses (spontaneous flexibility) and Remote Consequences (originality), but no significant differences for Obvious Consequences (different ideas). Gondola (1986) replicated this study and added tests of acute (single exercise) bouts, and found that both acute and long-term exercise conditions produced significant gains in all three of these creativity measures. Gondola (1987) tested another form of acute aerobic activity (dance), and found significant effects for all three measures of creativity.

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Steinberg et al. (1997) found that acute bouts of aerobic exercise (in an exercise class) produced small but significant effects on creative processes on one of three measures of the Torrance test. Ramocki (2002) extended these findings in testing the effects of various forms of aerobic exercise for physically fit vs. unfit groups. Physically fit subjects engaged in vigorous exercise for one hour and were tested using Torrance-type test forms. The performance gains of the fit subjects following exercise were generally larger, though not always to the point of statistical significance, than those of the unfit subjects, who did not exercise. One possible
explanation for these findings, as suggested by the literature on exercise effects on
cognitive processes as well as current recommendations of the medical community for
individual instances of exercise, is that the one hour period of vigorous exercise
created a fatigue level that swamped the main effects of the study.

The few studies relating exercise to creativity processes have generally found
positive effects, though varying in strength. However, no studies were found that
tested whether such effects are enduring. While establishing the impact of aerobic
exercise on creative potential is a potentially important issue, from a pragmatic
perspective such effects may be little more than a curiosity if those effects do not last
long enough to provide some practical benefits in terms of creative output.

1.06 MENTAL HEALTH

“There is no health without mental health.”

This statement from the World Health Organization emphasises how mental
health involves everybody. Mental health – the way we think or feel about ourselves
and what is going on around us, and how we cope with the stresses of life – affects
our sense of wellbeing as well as our physical health. Good mental health is essential
for students to continue educational growth and for creating a good emotional climate
in the school where they spend many hours. Good mental health often has a bearing
on making the right decisions and poor mental health may cause ineffective
educational attainment. The students have to associate with the teachers, peers,
parents and community at large for the successful completion of their studies. They
need a stress-free environment and good mental health to fulfil their responsibilities.
If children go on to develop poor mental health later in life, they have an increased
risk of poor physical health, poor learning, and poor employment and social outcomes
(Tremblay et al., 1992).

1.06.1 Mental health for Successful life

Mental health is the adjustment of human begins to the world and to each
other with a maximum of effectiveness and happiness. Good mental health is vital for
learning and life. Children who are mentally healthy are better equipped to meet life’s
challenges. They also learn better and get on better with others. Good mental health
helps children enjoy and benefit from their everyday experiences, have positive relationships with their families, friends and school staff, and contribute to their community in ways that are appropriate for their age. Good mental health in childhood provides a foundation for positive mental health and wellbeing, now and into the future. Having good mental health does not mean never having worries or feelings of distress. Everyone goes through ups and downs which can affect the way they feel and behave. Feeling worried; sad, frustrated or angry are all normal emotions. Mentally healthy children are able to use positive coping skills appropriate to their age to manage feelings and deal with difficulties. They develop helpful coping skills as part of their normal development and are not held back by emotional or behavioural problems.

1.06.2 Mental health difficulties

Mental health difficulties affect children’s emotions and behaviour, and can cause concern for the child, parents and caretakers, and also the child’s school. Other terms for mental health difficulties include mental health problems and emotional/behavioural problems. Because mental health difficulties can place enormous stress on children and families, professional help can be a useful aid. However, children with mental health difficulties often do not receive appropriate professional support for a number of reasons, such as parents not knowing where to go for help. Children’s mental health difficulties are generally classified as being one of two types: ‘internalising’ and ‘externalising’ (Bayer, Hiscock, Scalzo et al., 2009)

Internalising difficulties

Children with internalising difficulties show behaviours that are inhibited and over-controlled. They may have a nervous or anxious temperament and be worried, fearful and/or withdrawn. Children with externalising difficulties show behaviours that are under-controlled. They may have a more challenging temperament, shown in impulsive or reactive behaviour. The typical features associated with each pattern are summarised below. Features associated with children’s ‘internalising’ difficulties include:

- nervous/anxious temperament
- excessive worrying
• pessimistic thinking
• withdrawn behaviour
• peer relationship difficulties (eg can be isolated)

Externalising difficulties

Externalising behaviours cause difficulties for others as well as for the children themselves. It is not uncommon for children to show behaviours associated with both internalising and externalising patterns of behaviour.

Features associated with children’s ‘externalising’ difficulties include:

• challenging temperament
• reduced problem-solving skills
• attention difficulties, hyperactivity
• oppositional behaviour (eg doesn’t like to be told what to do; won’t follow rules)
• Aggressive behaviour.

1.06.3 Need of Mental Health

Mental health and wellbeing is vital for learning and life. Children who are mentally healthy learn better, benefit from life experiences and have stronger relationships with family members, school staff and peers. Good mental health in childhood also provides a solid foundation for:

• managing the transition to adolescence and adulthood
• engaging successfully in education
• Making a meaningful contribution to society.

School is the most significant developmental context, after family, for primary school-aged children. Schools play a crucial role in building children's self esteem and sense of competence. They can also act as a safety net and assist in protecting children from circumstances that affect their learning, development and wellbeing. Schools, families and the community, are key environments for comprehensively supporting children's mental health and wellbeing need to develop good mental health that can help them throughout their lives. Children who have these tools are better at learning, able to progress at school and better able to manage the transition to school (KidsMatter Early Childhood, 2010)
1.07 MENTAL HEALTH RELATED TO CREATIVITY

The relationship between mental disorders and creativity can be seen within their common characteristics. To be creative, one must think outside of the normal constraints. This abnormality in thinking can be associated to that of a psychopathological disordered individual. Although there is an evident association between traits of mental disorders, psychopathology symptoms are not the only possible source for creativity. Other possible sources include earlier traumatic experiences or even a good, enriched upbringing. This is to say that even if creativity and mental disorders had an effect on one another, there are other factors to the development of one’s creativity. J.Philipe Rushton says creativity and psychoticism are correlated.

Many people with bipolar disorder may feel powerful emotions during both depressive and manic phases, potentially aiding in creativity. Because (hypo) mania decreases social inhibition, performers are often daring and bold. As a consequence, creators commonly exhibit characteristics often associated with mental illness. The frequency and intensity of these symptoms appear to vary according to the magnitude and domain of creative achievement. At the same time, these symptoms are not equivalent to the full-blown psychopathology of a clinical manic episode which, by definition, entails significant impairment. Mental health is associated with emotional symptoms, conduct problem, hyperactivity, and Pro-social.

Emotional symptoms

- Moodiness
- Irritability or short temper
- Agitation, inability to relax
- Feeling overwhelmed
- Sense of loneliness and isolation
- Depression or general unhappiness

Hyperactivity

According to the DSM-IV (McBurnett, Lahey, & Pfiffner, 1993), hyperactivity is observed as excessive fidgeting, difficulty staying seated, excessive
running and climbing, and difficulty playing quietly, although in adolescents and adults it may be manifested as internal feelings of restlessness.

**Pro-social activity**

Voluntary activities intended to benefit another”, is a social activity that “benefits other people or society as a whole, such as helping, sharing, donating, cooperating, and volunteering” (Roberta L.Knicker Pocker adopted from Eisenberg and Mussen 1989) These actions may be motivated by empathy and by concern about the welfare and rights of others, as well as for egoistic or practical concerns. Evidence suggests that pro sociality is central to the well-being of social groups across a range of scales. Empathy is a strong motive in eliciting pro social activity, and has deep evolutionary roots. Pro social activity fosters positive traits that are beneficial for children and society.. Evolutionary psychologists use theories such as kin-selection theory and inclusive fitness as an explanation for why pro-social activity tendencies are passed down generationally, according to the evolutionary fitness displayed by those who engaged in pro-social acts. Encouraging pro-social behaviour may also require decreasing or eliminating undesirable social behaviours.

Literature and various studies have demonstrated a strong relationship between creativity (particularly within literature, arts and music) and bipolar disorder. A study done in 1949, supported the relationship between creativity and bipolar disorder and the idea that both are genetically predisposed. The study involved artists and their family members. These German artists included writers, architects, artists and composers. The findings stated that two-thirds of the artists and their relatives were “psychically normal” (Creativity and Bipolar Disorder). However, in comparison to the general public, this group had a greater number of “insane and neurotic” people and those in the group had a larger amount of suicides.

The experiment also found that 50% of poets and 38% of musicians were described as having “psychiatric abnormality” (Creativity and Bipolar Disorder). Another study, which compared those within the creative arts to those of professions such as public officials, scientists and businessmen, the creative arts individuals portrayed two to three times the rate of suicide attempts, mood disorders, substance abuse and psychosis. Another study found that 80% of writers met formal diagnostic criteria for major mood disorder compared to 30% of the general public. This again
suggests that artists are more likely to have bipolar disorder than those of the general public. Just as there is a proven genetic predisposition for bipolar disorder, other recent studies have shown that the same goes for creativity. One study in particular depicted that manic-depressed individuals and their relatives scored higher on creativity tests than the control groups. This suggests that creativity may have genetic predisposition, just as manic-depression is additionally seen through family lines.

This further implies that there may be a link between this particular mental disorder to creativity. Furthermore, the mere idea that these two entities are linked brings about a questioning of a "third factor", which would provide the link. It is additionally important to think about the point of the disorder’s onset and its effect on creativity within individuals.

1.08 SIGNIFICANCE OF THE STUDY

Schools are not merely meant for intellectual development or knowledge acquisition but schools should produce healthy individuals to take part actively and effectively in the societal endeavours. Studies are required to clarify the mental health and physical activity benefits on creativity among the school going population. The results would be helpful in understanding how these constructs mental health, physical fitness and creativity is dependent upon the complex set of individual differences. Even though there is a genetic basic for temperamental dispositions of an individual, these are modified by environmental facts. Social, cultural and environmental differences also have an effect on the quality of education students benefit from the education system. The present study is primarily an attempt to find the relationship between creativity and mental health and physical fitness among the primary school children.

The result of the study will be of helpful in the following ways: Developing new educational strategies that will help in improving Psycho-Social variables and there by mental health, to suggest mental health programmes in schools, restoration of mental health and protection against hazards to mental health. The study will be the eye opener for administrative personals of the school to provide conducive environment to develop mental health.
The results would also be helpful in Designing new strategies in teaching learning arena to enhance, to infuse activities that would develop creative abilities in students taking into account of their individual differences, to implement productive and assessment methods for improving creativity.

The results will also be helpful in developing programmes for improvements in physical fitness and how it’s benefits can be useful for higher academic performance. Schools may play an important role by identifying children with low physical fitness and by promoting positive health behaviors such as encouraging children to be active, with special emphasis on the intensity of the activity.

1.09 STATEMENT OF THE PROBLEM

The study intended to find the relationship between creativity and physical fitness and mental health of primary school children. It also tried to find how creativity is being enhanced by physical fitness and mental health.

1.10 DEFINITION OF KEY TERMS

a. Creativity:

Creativity is the Capacity or ability of an individual by his own intelligence and imagination to create produce or involve a new idea or object including re-arrangement or remodelling of what is already known to him. It involved a series of related actions and hence it is called creative process. This creative process comprises of creative thinking. The outcome of creative thinking is “Novelty” and innovativeness.

b. Physical Fitness:

Physical fitness is considered a measure of the body is ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations. Physical fitness is generally achieved through correct nutrition, exercise, and enough rest.
c. Mental Health:

Mental health is an ability to adjust to the present situation and the likelihood that the individual will adjust to the forthcoming situation. Mental health denotes the emotional stability and intellectual efficiency of people.

d. Primary School Children:

A primary school is an institution in which children receive the first stage of compulsory education known or primary or elementary education. Children are admitted in the Primary School at the age of five.

1.11 OBJECTIVES

Part – I Percentage Analysis:

1. To find out the level of Creativity of 5th grade children in Primary Schools with reference to the demographic variables such as Gender, Age, Birth order, Community Type of School, Location of School, Board of Studies, Medium of Instruction, Academic Achievement, Parent’s Education, Parent’s occupation, Parent’s Income and Academic Achievement.

2. To find out the level of Physical fitness of 5th grade children of primary schools with reference to all demographic variables.

3. To find out the level of Mental Health of 5th grade children of Primary Schools with reference to all demographic variables.

Part – II Differential Analysis:

1. To find out significant difference between 5th grade primary school children in their Creativity with reference to Gender, Location of School and Medium of Instruction.

2. To find out significant difference among 5th grade primary school children in their Creativity with respect to Age, Birth Order, type of school, Board of Study, Community and Academic Achievement.

3. To find out significant difference between 5th grade primary school children in their Physical fitness with reference to Gender, Location of School and Medium of Instruction.
4. To find out significant difference among 5th grade primary school children in their Physical fitness with respect Age, Birth Order, Type of School, Board of Study, Community and Academic Achievement.

5. To find out significant difference among 5th grade primary school children in their Mental Health with reference to Gender, Location of School and Medium of Instruction.

6. To find out significant difference between 5th grade primary school children in their Mental Health with respect to Age, Birth Order, Type of School, Board of Study, Community and Academic Achievement.

**Part- III Association Analysis:**

1. To find out significant association between parent’s education and Creativity, Physical Fitness and Mental Health of 5th graders.

2. To find out significant association between parent’s occupation and Creativity, Physical Fitness and Mental Health of 5th graders.

**Part – IV Correlation Analysis:**

1. To find out significant correlation between Mental Health and Creativity with respect to demographic variables.

2. To find out significant correlation between Physical Fitness and Creativity with respect to demographic variables.

3. To find out significant correlation between Physical fitness and Creativity of 5th grade children.

4. To find out significant correlation between mental health and Creativity of 5th grade children.

**Part – V Regression Analysis:**

1. To find out whether Physical Activity, Body Mass Index and Mental Health account for any significant amount of variability in Creativity of 5th graders.
1.12 HYPOTHESES

Part – I Percentage Analysis:
1. The level of Creativity of 5th grade children in Primary Schools with reference to the demographic variables such as Gender, Age, Birth order, Community Type of School, Location of School, Board of Studies, Medium of Instruction, Academic Achievement, Parent’s Education, Parent’s occupation, Parent’s Income and Academic Achievement is low.
2. The level of Physical fitness of 5th grade children of primary schools with reference to all demographic variables is undesirable.
3. The level of Mental Health of 5th grade children of Primary Schools with reference to all demographic variables is low.

NULL HYPOTHESES

Part – II Differential Analysis:
1. There is no significant difference between 5th grade primary school children in their Creativity with reference to Gender, Location of School and Medium of Instruction.
2. There is no significant difference among 5th grade primary school children in their Creativity with respect to Age, Birth Order, type of school, Board of Study, Community and Academic Achievement.
3. There is no significant difference between 5th grade primary school children in their Physical fitness with reference to Gender, Location of School and Medium of Instruction.
4. There is no significant difference among 5th grade primary school children in their Physical fitness with respect Age, Birth Order, type of school, Board of Study, Community and Academic Achievement.
5. There is no significant difference among 5th grade primary school children in their Mental Health with reference to Gender, Location of School and Medium of Instruction.
6. There is no significant difference between 5th grade primary school children in their Mental Health with respect to Age, Birth Order, type of school, Board of Study, Community and Academic Achievement.
Part – III Association Analysis:

1. There is no significant association between parent’s education and Creativity, Physical Fitness and Mental Health of V graders.
2. There is no significant association between parent’s occupation and Creativity, Physical Fitness and Mental Health of V graders

Part – IV Correlation Analysis:

1. There is no significant correlation between Mental Health and Creativity of 5th grade children with respect to demographic variables.
2. There is no significant correlation between Physical Fitness and creativity of 5th grade children with respect to demographic variables.
3. There is no significant correlation between Mental Health and Creativity of 5th grade children (Total Sample)
4. There is no significant correlation between Physical Fitness and creativity of 5th grade children (Total Sample).

Part – V Regression Analysis:

1. There is no significant amount of variability in Creativity of 5th Graders on account of Physical Activity, Body Mass Index and Mental Health.

1.13 DELIMITATIONS:

The present study is limited to the population of primary school children specially the 5th graders. The investigator had selected 948 children from 18 schools from 3 districts. The demographic variables identified were gender, age, birth order, and community, type of school, board of study, location of school, medium of instruction, academic achievement, parent’s education and occupation. Creativity was assessed in three dimensions such as Fluency, Flexibility and Originality. Physical fitness was measured through physical activities and body mass index and mental health was measured through emotional symptoms, conduct problem, hyper activity and pro-social activities.

1.14 LIMITATIONS

The investigator experienced sampling error for some extend. The 5th graders might not have given true responses for mental health status scale.