CHAPTER I

INTRODUCTION
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1.1 INTRODUCTION :

God has created the world and he has made man superior to all other creatures. Man's superiority is due to his wisdom and conscience. In platonic terminology, Education is the training of each individual to do, for what his talents particularly suit, in such a way as to be beneficial for the whole social group.

Education is initiation into what is worthwhile with the provision that what has been taught in a morally un-objectionable way. All formal education is purposive, self-conscious and practical activity, which goes on in educational institutions. It presupposes two facts: that persons are conscious and capable of thought; secondly, that persons are capable of rational choice (Khan, 1976).

Education is a social function. Thus it serves the society which maintains it. Its first and foremost role is to conserve the existing culture, by transmitting it from generation to generation (Siddiqui, 1986).

The quality of education is directly related to the quality of instruction in the classrooms. The teacher is considered the most crucial factor in implementing all educational reforms at the grassroots level. It is a fact that the academic qualifications, knowledge of the subject matter, competence and skills of teaching and the commitment of the teacher have effective impact on the teaching-learning process. Many factors are responsible for shaping the mind of children.

Education is to cater to the holistic development of the students. The goal of education should be to teach children how to develop
competencies to solve problems arising from hindrances to the satisfaction of their wants. Therefore it is necessary that on one hand we try to develop Emotional intelligence i.e., personal and social competencies and on the other hand we should also develop the cognitive ability through proper education.

With the advent of an electronically networked society we are neglecting emotion and relationships in the social behaviours of our children. Scientific research indicates that the formation of emotional skills is much easier in the formative years starting from birth to the late teens. Looking at the existing structures, school is the major activity of that age group. Introducing emotional and social skills in schools would be a radical change, yet schools do not change so readily. One possible solution is to introducing emotional skills on the spaces available around school, during the breaks. Daniel Goleman describes “school for emotions” as be a local, community based activity in conjunction with other activities like scouts, parent-teacher associations, artistic expression groups, clubs and games to resolve conflicts in the play ground.

In the context of globalization, intellectual, emotional, social excellence and cognitive competence of an individual plays an important role. Thus education is one of the important means to develop these qualities among children to meet the global challenges.

The UNESCO international commission on education(1996) also recommended that if we are to face the many challenges that the future holds in store, various countries of the world must organize education around four fundamental types of bearing or pillars of learning, namely (a) learning to know; (b) learning to do; (c) learning to live together; (d) learning to be. The commission felt that formal education traditionally focuses mainly, if not exclusively, on learning to know and to a lesser extent on learning to do. The other two aspects are left to chance. This
unequal treatment of various aspects of education is the genesis of most of the problems we confront today.

1.2. AIMS AND OBJECTIVES OF SECONDARY EDUCATION:

Education is one of the most important factors in achieving the developmental goals of a country. The formal education system consists of primary education, secondary education and higher education. Secondary education is the bridge between primary education and higher education. It is often considered as the most important segment of an individual's learning. Elementary education seeks to provide the basic information and skills needed for survival. It is generally agreed that one of the main objectives of secondary education is to develop, among the pupils, qualities of leadership needed in different walks of life. Secondary education has therefore a vital role to play in any programme of education.

The process of education becomes meaningless without aims. Every activity, every project, every programme and every enterprise can be analysed in terms of its aims. The major aim of secondary education is to enable the learners to acquire new knowledge, skills, and to enable them to use modern science and technology. It is to develop positive outlook and scientific attitude, to acquire skills for self-employment and to inspire them with religious, moral, cultural and social values. Therefore secondary education must be of the highest quality in order to meet the needs of the modern society. The quality is always the result of higher intention, sincere effort, intelligent direction and skillful execution.
1.2.1. Secondary Education Commission:

The Secondary Education Commission in its report recommended four major aims of secondary education keeping in view, the needs of democratic India as envisaged in the Constitution. They are;

a. Development of Democratic Citizenship:

The requisite knowledge and training in democratic citizenship is very essential for a healthy democracy. It is necessary that the children who are the future citizens of this great country must acquire the high ideals of democracy. In order to achieve this end, intellectual, moral, cultural and social qualities should be developed in the students. Such qualities can be properly infused through education. The commission felt that education should aim at developing the qualities like clear thinking, clarity in speech and writing. Besides this, love for social justice, true patriotism, education for community living, spirit of tolerance should be developed for building democratic citizenship among the students.

b. Improvement of Vocational Efficiency:

The students should become economically self-dependent after receiving some vocational training at the secondary level to contribute to the economic development of the country. This can be done when the children develop a positive attitude towards work, national prosperity and promotion of technical skill and efficiency.

c. Development of Personality:

Secondary education should help the students in the development of their all round and balanced personality, in addition to promulgating bookish knowledge. They should be encouraged to take part in cultural and co-curricular activities in order to develop the multi-faceted personality.
The Commission recommended that:

i. Every child is born with a certain talent. It should be given the opportunities so that it can realise its sources of creative energy.

ii. The child should be given training so that its interests are fully developed.

iii. They must be able to cultivate rich interest which they will pursue in their leisure.

iv. Great importance should be given to subjects like art, crafts, music and development of similar hobbies in the secondary education school curriculum.

v. They should be encouraged to take part in curricular and co-curricular activities in order to achieve all round development of their personality.

d. Education for Leadership:

A Genuine leadership is necessary in a democracy. Education can provide proper leadership. The students can be trained to perform the qualities of leadership which prepares others to follow. Secondary education should enable the students to become responsible leaders through various activities. They can be made to assume their responsibilities of leadership in social, political, industrial and cultural fields. Leadership calls for higher standards of education where the students have deeper sense of social issues and a clear understanding of various other issues.

1.2.2. Dr. D.S. Kothari Education Commission (1964 - 66)

The report of Dr. D.S. Kothari Education Commission is an epoch-making event in the history of Indian education. The scope of the commission was wider than the secondary education commission and it
reviewed the entire system of education i.e., right from the primary to the university level including related branches. Kothari Commission laid special stress on maintaining uniformity in the country. The Indian Education Commission has recommended the following aims of secondary education to meet the needs of democracy.

a. Education and Productivity:

Keeping in mind the social and educational conditions it has emphasized to link education with productivity. The immense resources that we need for the programme can be generated only if education is related to productivity. In order to strengthen the link between education and productivity the following recommendations of the commission should be taken into consideration i.e., science education, work experience, vocationalisation of education, application of science and work experience in production.

b. Social and National Integration:

The commission has said that social and national integration should be one of the aims of education. Social and national integration is necessary for the progress of the country. The commission has suggested the steps i.e., common school system, social and national service, proper language policy and promoting national consciousness to achieve this aim.

c. Education and Modernization:

It is the era of modernization. With the advancement in science and technology, India is progressing towards modernization. There is also a need to modernise ourselves in our thoughts, beliefs and knowledge. In order to create new social order as suggested by the commission to pace with knowledge expansion with curiosity for change.
**d. Development of Social, Moral and Spiritual Values:**

The commission expressed its concern that there is no provision for developing moral and spiritual values in our school curriculum. Here the commission has stressed science education, modernization and vocationalisation of education. It has also emphasised moral and spiritual values. The commission has said that "we are conscious of the fact that India is making efforts to establish coordination between science and spiritual values. It will develop not only one aspect of personality but will fulfill the needs of total personality." It is with this belief that the commission has stressed it as one of the aims of education. The commission has suggested these steps to be followed in this regard i.e., a part of education, curriculum development and allotment of periods.

**1.3. THEORITICAL BACKGROUND OF THE STUDY:**

Cognitive ability is the growth in thought processes that enables them to acquire and use knowledge about the world. Cognitive development refers to growth refinement, and the ability of children to adapt to its environment intellectually. Hence, cognition is composed of different kinds of processes such as perception, memory, problem solving, relationship of one piece of information to another, ability to perceive items in relationship, the ability to classify objects into various meaningful categories, the ability to judge and the ability to be able to make moral judgment. Cognitive abilities and that the motivation properties alter and influence the expression of pro-social behaviors.

Jean Piaget (1981), a famous psychologist and theorist, placed adolescents in a formal operational stage. The dominant explanation for the changes in the way teenagers think has been that of Jean Piaget, who saw them entering the highest level of cognitive development. The people are capable of as Piaget called, formal
operations which is marked by the capacity for Abstract thinking through formal operations. In between the age of 11 and 15, Piaget believed that the thought of a child become more abstract than idealistic or logical. The attainment of formal operations give adolescents a new way to manipulate or operate on information. This is Piaget's last stage of cognitive development. After this he proposed "no further structural improvements in the quality of reasoning". Unfortunately, it is believed that not all adults arrive at formal operations although most have reached their full potential by about the age of 14-15 years.

There are several structures that are developed in this stage, hypothetical - deductive reasoning, scientific - inductive reasoning and reflective abstraction. Piaget (1981) described the capacity for hypothetic deductive reasoning as the ability to be able to deal with not only objects and experiences but also with hypotheses as well, with "the possible as well as the real". Scientific - inductive reasoning is the ability to think like a scientist, to make conclusions by going from specific observations to generalizations. When people in this stage have been confronted by a problem they can think about it abstractly, and can think over each of the different variables and how they, or combinations of them would affect the situation while systematically testing for these. Another structure that has developed over this period is reflective abstraction, a mechanism by which knowledge can be gained.

Theory of psychosocial development reveals that the adolescence is in a period of psychosocial crisis. Erikson's fifth crisis reflects his own youth. Erikson (1968) believed that the chief task of adolescence is to resolve the conflict of identity versus identity confusion to become a unique adult with an important role in life. To form a person's identity,
the ego organizes abilities, needs, and desires and helps to adapt them to the demands of society.

During adolescence, from about 13/14 to about 20 years, the adolescent learns how to answer satisfactorily and happily the question of who am I? "But even the best adjusted of adolescents" experiences some role identity confusion. Erikson believes that during successful early adolescence, mature time perspective is developed, the young person acquires self certainty as opposed to self-consciousness and self doubt.

Gardner (1983) advocates Thorndike's ideas of social intelligence by talking about multiple intelligence including interpersonal intelligence and intra-personal intelligence. Interpersonal is understanding the behavior and reading the moods, desires, and intentions of others. Intra personal is understanding one's own feelings and behavior.

1.4. SIGNIFICANCE OF PERSONAL COMPETENCIES FOR SECONDARY SCHOOL STUDENTS:

School education is an important segment of the total educational system contributing significantly to the individual as well as to national development. A good school provides conducive environment for development of cognitive, affective and psychomotor domains for all round development of individuals. Perhaps the importance of the interface between ‘cognition; emotion, and action’ may be appreciated better by recalling the balance that has to be maintained between ‘JNANA YOGA, BHAKTIYOGA and KARMA YOGA’ respectively as mentioned in the ancient Indian scriptures. Coming back to the modern academic and professional literature, the three educational taxonomies involve cognitive, affective and psychomotor domains. Today, the trouble
with the process of education is the pervasive emphasis on cognition and the neglect of the affective state of the learners’. As learning is not a mechanical process there is a need to recognize the interface between cognition and emotion. Therefore, education for promoting emotions needs to be recognized as an essential element of the educational process in the classroom.

The three domains of education i.e., cognitive, affective and psychomotor are rightly integrated aspects of human learning. In the present day’s educational scenario, more importance is given to the development of cognitive faculty than the affective one. The schools are only concerned with the academic achievement of the students which train them in cognitive skills. Many institutions focus only on the skills and knowledge domains. Many teachers stay away from the affective domain because of its complexity. Learning is essential for students to master skills but if the affective domain is ignored, the cognitive areas are greatly affected. It is difficult to achieve even the highest levels in the cognitive domain if complementary skills in the affective domain are not developed.

Teaching emotional and social skills is very important at school. International commission on education in the 21st century, indicates the emotions to be evolved and strengthened among students through suitable learning strategies. In short, the formation of emotional Skills is much easier in the formative years from birth to the late teens. In the Indian context schools would be the right place to introduce emotional skills in children.

Emotions and feelings are critical to students learning. These emotions and feelings are a great part of the interactions and relationships that form within the classroom. Relationships in the classroom directly
affect the learning environment. If one feels threatened, sad, stressed etc., the learning process can break down. Consequently, emotional instability among students is on the rise.

The concept of personal competencies and social skills gained enormous popular appeal, and school based programmes of social and emotional learning multiplied. These programmes usually deal with personal explicitly, and they can help children to build on feelings, vocabulary, recognize facial expressions of emotion, control impulsive behaviour, and regulate feelings such as sorrow and anger.

There is evidence that programmes of development of self and emotional learning that are well designed and well implemented can promote children’s social as well as personal adjustment. However, personal and social learning programmes usually address a very broad range of competencies, and it is not known to what extent the benefits observed in these studies can be attributed specifically to the training of personal skills. Moreover, the success of these interventions depends on many factors, including the quality and motivation of the teachers, as well as their capacity to promote informal learning and generalization of skills.

Training in emotional skills at secondary school level may contribute to academic achievement in various ways. The ability to perceive and understand emotions may facilitate writing and artistic expression, as well as the interpretation of literature and works of art. Self-regulation may help children to handle the anxiety of taking tests, or the frustrations associated with any pursuit requiring an investment of time and effort. It may also facilitate control of attention, sustained intellectual engagement, intrinsic motivation and enjoyment of challenging academic activities.
1.5. SIGNIFICANCE OF SOCIAL COMPETENCIES FOR SECONDARY SCHOOL STUDENTS:

During the past two decades, a convincing body of evidence has accumulated to indicate that unless children achieve minimal social competence by about the age of 6 years, they have a high probability of being at risk into adulthood in several ways, because social development begins at birth and progresses rapidly during pre-school year both socially and intellectually. Thus, periodic assessment of children’s progress in the acquisition of social competencies is appropriate.

Social competence refers to the social, emotional and cognitive skills and behaviours that change adaptation. Besides this simple definition, social competence is an elusive concept, because required healthy social development varies with the age of the child and with the demand.

A child’s social competence depends upon a number of factors including the child’s social skills, social awareness and self confidence. Children who have wide varieties of social skills and who are socially aware and perceptive are likely to be socially competent.

One of the aims of education should be to develop such social traits and qualities which would enable the citizens to fulfill their obligations positively. They should contribute constructively towards the national progress overriding their personal interests. It is necessary that the children who are the future citizens of this great country must acquire the high ideals of democracy. The pupils should be enabled to provide leadership in social, industrial and cultural fields with proper education and training.
People who manage their feelings well and deal effectively with others are more likely to live contented lives. Happy people are more apt to retain information and do so effectively than unhappy people.

The process of maturation and learning play effective roles in the social development in human beings. Social behaviour is learnt and acquired pattern of behaviour. Social development is concerned with the ways and manners of expressing various positive manners. The ways are learned through the experiences gained from the environment through formal and informal education and through the specialized training given to an individual since childhood.

During adolescence, peer relations and student-teacher relations become particularly important for children. A key developmental task of adolescence is the formation of an identity or sense of the kind of person one is and the kind of person one wants to be. Adolescents try on different social roles as they interact with peers, and peers serve as a social stepping stone as adolescents move away from their emotional dependence upon their parents and towards autonomous functioning as an adult. In many ways, then childhood peer relations serve as training grounds for future interpersonal relations, providing children with opportunities to learn about reciprocity and intimacy. These skills are associated with effective interpersonal relations in adult life, including relations with co-workers and with romantic partners.

When children experience serious difficulties in peer relations, the development of social competencies may be threatened. Parents and teachers are the primary source of social and emotional support for children during the first years of life, but in later years peers begin to play a significant role in a child’s social-emotional and cognitive development.
increasingly with age, peers rather than parents become preferred companions, providing important sources of entertainment and support.

The social interactions are connected to the relations between teacher and pupil. Both are active participators in the development of learning and education, upbringing and good manners of the pupil and in the development of professional educational competence of teaching. Development of the talent and the personality through social interactions with others are one of the greatest challenges in today's schools.

1.6. SIGNIFICANCE OF COGNITIVE ABILITIES FOR SECONDARY SCHOOL STUDENTS:

Among current educational psychologists, the cognitive perspective is more widely held than the behavioural perspective, perhaps because it admits causally related mental constructs such as traits, beliefs, memories, motivations and emotions. The psychology of cognitive development, opens a special perspective for educational psychology. This is so because education and the psychology of cognitive development converge on a number of crucial assumptions. First, the psychology of cognitive development defines human cognitive competencies at successive phases of development. Education aims to help students acquire knowledge and develop skills which are compatible with their understanding and problem-solving capabilities at different ages. Thus, knowing the students level on a developmental sequence provides information on the kind and level of knowledge they can assimilate, which, in turn, can be used as a frame for organizing the subject matter to be taught at different school grades. This is the reason why cognitive abilities are so influential at secondary level.

At secondary school level some students obviously and consistently understand new concepts quicker, solve unfamiliar problems 15
faster, see relationships that others don’t and are more knowledgeable about a wide range of topics than others. We call such students as smart, bright, quick or intelligent. These abilities will make the students to grow academically as well as be successful in their occupational success in course of life.

Modern psychologists views that cognitive ability is precious at secondary level because it has a number of dimensions; all of which seem to be correlated with one another. General cognitive ability is an important predictor of a wide range of economic and life outcomes, with similar validity across groups with different average levels of ability. It is essential to measure this factor at the level of academic career.

1.7. NEED AND IMPORTANCE OF THE STUDY:

India is faced with challenges at home whose urgency cannot be defined. Whether the country can face these internal as well as external challenges successfully will devise the quality of life of the citizens of tomorrow. Education is the most effective instrument to meet these challenges. Early research on the predictors of academic achievement focused primarily on intellectual and ability factors. There is considerable evidence to show that intelligence alone does not account for all the variance in academic achievement. Although intelligence is perhaps still the single most effective predictor of school achievement, research has shown that personal and social factors affect both the development of intelligence and the level of achievement of the child.

The education system of any nation is connected with the society and is conditioned by the ethos, culture and character of the nation. Education helps in the development of the potentialities of the child according to the changing needs of the dynamic and ever growing society. “The purpose of education is to turn mirrors into windows”.

(Sydney J. Harris 2007) Education therefore should be linked with the overall needs of the society. Happiness, progress and prosperity of the whole humanity depend on the education system.

Education and environment play a major role in the development of adolescent period. During this period (from 12 to 16 age) vocational interest develops. So, during the adolescent period self-awareness, self-regulation and motivation play a major role. In this connection cognitive abilities like abstract compared emotion, logical reasoning and problem solving play a major role in acquisition of knowledge and choosing ones career, based on ones interests. In the present competitive world, it is not enough if the adolescent acquires only knowledge. He also has to develop self-awareness, team capabilities and communication skills in order to be successful in life.

The concept of Emotional intelligence in the Indian context is embedded in its highly valued personal values, virtues, religious traditions and cultural practices. India often treats individual inclination as consistent with dharma. Indians develop a morality of caring which emphasizes broad and relatively known as contingent interpersonal obligation – a familial view of interpersonal relationship and contextual sensitivity. The Indian tradition has from time to time and through different systems of belief and practices emphasized certain interdependent but interrelated concepts like stress and suffering.

If personal and social competencies are identified and encouraged properly students will learn to work in group and solve their own problems. Knowledge of human development can be well established in our educational programme. Knowledge of team spirit and problem solving will help to use their own intelligent capacity. In the present competitive world emphasis is placed on team spirit, communication and
empathy to succeed in life. To make use of cognitive abilities efficiently, emotional intelligence is required, and secondary school level is the best period to develop the emotional aspects.

Education for promoting competencies needs to be recognized as an essential element of the educational process in the classroom and therefore, developing competencies become a prime concern now a days.

Personal competence is totally dependent on the environment. It is related neither to development of some organ nor to physiological process. There is ample scope for its development at any stage. So the results of this study will be useful to the class room teachers to improve students competencies.

In recent years concerns have been raised about the erosion of social and cognitive competencies as a consequence of socio-emotional change and increasing globalization. It has been argued that there had been an increasing instrumentalisation and individualization of social relations. Until recently it has not been possible to analyse the linkages between macro-social change and individual level attitudes, due to the lack of reliable time series data measuring certain concepts repeatedly across many different societies or large scale longitudinal studies following the development of social competencies and emotional and personal competencies with in individual’s overtime.

For the development of vocational interest and ability, knowledge of communication and team spirit must be made known to students. Without self-awareness and motivation nothing can be achieved. Hence, for our youths it is an important concept. Empathy is also important in a team work for proper achievement of the goal to save time, money and
energy. Team work plays a major role in bringing interpersonal relationship.

Now a days intellectual capacity of an individual is tackled only on the basis of common sense. It does not take into account the complex nature of intelligence. Hence, aspects like comprehension, cognition, abstractness understanding, complete grasping, problem solving, scientific thinking, complexity and variety are missing from these sources.

The development of resilience, Emotional intelligence and social competencies in young people is not only linked to long term occupational and life success but is also associated with the prevention of substance abuse, violence and suicide. It is important that we consider the establishment of social competency as important as academic competency in our schools and communities.

It is important to recognize that the skills and habits of resilience and Emotional intelligence benefit all people, not just those who are marginalized or come from troubled backgrounds.

Some people obviously and consistently understand new concepts quicker, solve unfamiliar problems faster, see relationships that others don’t and are more knowledgeable about a wider range of topics than others. We call such people smart, bright, quick or intelligent. In order to assess these people psychologists have developed tests to measure this trait. Such tests are often referred to as tests of cognitive ability.

If we observe the school situation of secondary school students’, school failure rates are higher among the population. According to Repetto (2006), school failure means maladjustments between the
student's actual ability and his/her academically measured school performance. Approximately 30% of these school failure cases are due to deficit in social – Emotional competencies and 20% to lack of family and educational support. 50% of these due to cognitive abilities. Therefore, it can be asserted that there is a risk situation for school failure and socio-educational maladjustment.

Beyond academic intelligence, the development of socio-emotional competencies makes it possible to tackle the problem of school failure as a socio-personal condition that is shown in the capacity of the individual to reach educational objectives proposed by a system or a school, at a certain curriculum level. In order to meet this objective there is an urgent need to develop a set of competencies among our children.

Modern societies demand professionals with a wide range of competencies. Among these, some stand out more and more; those not exclusively related to the tasks inherent to a job, but referring to how one works, attitude towards work and towards others, quality of human relations, flexibility or ability to adapt. Beyond knowledge and know how, other requirements are wanting to do, knowing how to be, and knowing how to behave, considering axiological aspects that are implicit in how we perceive and live with others in a social context. As a matter of fact, these type of social, personal and cognitive competencies are proven to facilitate placement of students’, and in general, they can be considered to promote competencies.

For all these reasons, there is a need to promote school psychology interventions to develop such competencies throughout life, interventions focused on the designing and implementing emotional education programmes, ideally accompanied by other strategies such as the teaching of personal – social competencies into the school curriculum and in
teaching strategies in all areas. By applying these programmes, students not only enrich their emotional vocabulary, but also learn to use coping strategies in emotionally difficult situations, attaining emotional self-control, so that they can adequately manage emotions and conflictive impulses. These self-regulating strategies are also effective in non-school contexts, whether family or social. We see the transfer of personal-social competencies, usually associated with emotional intelligence, from the academic setting to other settings such as the personal and social.

Finally, personal-social competencies in general consist of preventing risk factors in the classroom, reducing the number of classroom expulsions and the rate of aggressions, and improving academic marks and school performance, levels of well-being and psychological adjustment, and satisfaction in students' interpersonal relationships. Thus, opportunities increase for these students to take part in pro-social activities and to gain affective rewards for their participation.

How are competencies influenced through interactions with family members, peers, in the school or work context, or one's neighborhood? What are the factors and processes that foster and promote social and emotional competencies? To answer these questions it is vital to assess information about contextual as well as individual characteristics. Some of the recent researchers like Hartap and Moore (1990), Kinsey (2000), Ladd and Profilet (1996), McClellan (1999) etc., suggest that a child's long term social and emotional adaptation, academic and cognitive development and citizenship are enhanced by frequent opportunities to strengthen competencies during adolescence. So keeping in view about the need to develop interpersonal and intrapersonal skills in adolescents and to study its association with cognitive abilities, the researcher wanted
to throw some light on these aspects. Hence the present study was undertaken to fill the gaps in this area of research.

1.8. STATEMENT OF THE PROBLEM:

The problem selected for the present study is – AN "INVESTIGATION INTO THE ASSOCIATION OF PERSONAL COMPETENCIES AND SOCIAL COMPETENCIES OF SECONDARY SCHOOL STUDENTS WITH THEIR COGNITIVE ABILITIES".

1.9. SCOPE OF THE STUDY:

Keeping in view the time constraint of the investigation, the present study is confined to the following aspects.

- The scope of the study extends to study the effect of two independent variables i.e., personal competencies and social competencies on cognitive ability.
- The present study included IX standard English medium students of one district from two educational divisions.

1.10. OBJECTIVES OF THE STUDY:

1.10.1. General Objectives:

1. To determine the relationship between personal competencies and cognitive abilities of secondary school students.
2. To determine the relationship between social competencies and cognitive abilities of secondary school students.
3. To determine the main and interaction effect of personal competencies on cognitive abilities of secondary school students.
4. To determine the main and interaction effect of social competencies on cognitive abilities of secondary school students.

1.10.2. Specific Objectives:

1. To find out the relationship between self-awareness and Abstract reasoning of secondary school students.
2. To find out the relationship between self-regulation and Abstract reasoning of secondary school students.
3. To find out the relationship between motivation and abstract reasoning of secondary school students.
4. To find out the relationship between empathy and abstract reasoning of secondary school students.
5. To find out the relationship between team capability and abstract reasoning of secondary school students.
6. To find out the relationship between communication and abstract reasoning of secondary school students.
7. To find out the relationship between self-awareness and scientific reasoning of secondary school students.
8. To find out the relationship between self-regulation and scientific reasoning of secondary school students.
9. To find out the relationship between motivation and scientific reasoning of secondary school students.
10. To find out the relationship between empathy and scientific reasoning of secondary school students.
11. To find out the relationship between team capability and scientific reasoning of secondary school students.
12. To find out the relationship between communication and scientific reasoning of secondary school students.
13. To find out the relationship between self-awareness and problem solving of secondary school students.
15. To find out the relationship between motivation and problem solving of secondary school students.
16. To find out the relationship between empathy and problem solving of secondary school students.
17. To find out the relationship between team capability and problem solving of secondary school students.
18. To find out the relationship between communication and problem solving of secondary school students.
19. To study the main effect of self-awareness on abstract reasoning of secondary school students.
20. To study the main effect of self-awareness on scientific reasoning of secondary school students.
21. To study the main effect of self-awareness on problem solving of secondary school students.
22. To study the main effect of self-regulation on abstract reasoning of secondary school students.
23. To study the main effect of self-regulation on scientific reasoning of secondary school students.
24. To study the main effect of self-regulation on problem solving of secondary school students.
25. To study the main effect of motivation on abstract reasoning of secondary school students.
26. To study the main effect of motivation on scientific reasoning of secondary school students.
27. To study the main effect of motivation on problem solving of secondary school students.
29. To study the interaction effect of self-regulation and motivation on Abstract reasoning of secondary school students.
30. To study the interaction effect of self-regulation and motivation on Abstract reasoning of secondary school students.
31. To study the interaction effect of self-awareness and self-regulation on scientific reasoning of secondary school students.
32. To study the interaction effect of self-awareness and motivation on scientific reasoning of secondary school students.
33. To study the interaction effect of self-regulation and motivation on scientific reasoning of secondary school students.
34. To study the interaction effect of self-awareness and self-regulation on problem solving ability of secondary school students.
35. To study the interaction effect of self-awareness and motivation on problem solving ability of secondary school students.
36. To study the interaction effect of self-regulation and motivation on problem solving ability of secondary school students.
37. To study the interaction effect of self-awareness, self-regulation and motivation on Abstract reasoning of secondary school students.
38. To study the interaction effect of self-awareness, self-regulation and motivation on scientific reasoning of secondary school students.
40. To study the main effect of empathy on Abstract reasoning of secondary school students.
41. To study the main effect of empathy on scientific reasoning of secondary school students.
42. To study the main effect of empathy on problem solving of secondary school students.
To study the main effect of team capability on Abstract reasoning of secondary school students.

To study the main effect of team capability on scientific reasoning of secondary school students.

To study the main effect of team capability on problem solving of secondary school students.

To study the main effect of communication on abstract reasoning of secondary school students.

To study the main effect of communication on scientific reasoning of secondary school students.

To study the main effect of communication on problem solving of secondary school students.

To study the interaction effect of empathy and team capability on Abstract reasoning of secondary school students.

To study the interaction effect of empathy and communication on Abstract reasoning of secondary school students.

To study the interaction effect of team capability and communication on Abstract reasoning of secondary school students.

To study the interaction effect of empathy and team capability on scientific reasoning of secondary school students.

To study the interaction effect of empathy and communication on scientific reasoning of secondary school students.

To study the interaction effect of team capability and communication on scientific reasoning of secondary school students.

To study the interaction effect of empathy and team capability on problem solving ability of secondary school students.
56. To study the interaction effect of empathy and communication on problem solving ability of secondary school students.

57. To study the interaction effect of team capability and communication on problem solving ability of secondary school students.

58. To study the interaction effect of empathy, team capability and communication on Abstract reasoning of secondary school students.

59. To study the interaction effect of empathy, team capability and communication on scientific reasoning of secondary school students.

60. To study the interaction effect of empathy, team capability and communication on problem solving ability of secondary school students.

1.11. VARIABLES OF THE STUDY:

A variable is one, which undergoes change. The researcher selects, observes and measures the variables for the purpose of conducting research. The variables, which are taken in the present study are given as follows along with their components.

*Dependent variable:*

The variable which is observed by the researcher to determine the effect of independent variable on dependent variable is called dependent variable.

In the present study cognitive ability is selected as the dependent variable.
The three dimensions of cognitive abilities are –

- Abstract reasoning
- Scientific reasoning
- Problem solving ability.

**Independent variable:**

Independent variable is defined as that variable which is selected, measured and observed by the researcher to determine its concomitant effect on the observed phenomenon. The independent variables of the present study include -

**Personal competencies:**

The three dimensions of personal competencies are –

- Self-awareness
- Self-regulation
- Motivation.

**Social competencies:**

The three dimensions of social competencies are –

- Empathy
- Team capability
- Communication.

**1.12. HYPOTHESES OF THE STUDY:**

The research hypotheses of the present study are as follows

1. There is a positive significant relationship between self-awareness and abstract reasoning of secondary school students.
2. There is a positive significant relationship between self-regulation and abstract reasoning of secondary school students.
3. There is a positive significant relationship between motivation and abstract reasoning of secondary school students.
4. There is a positive significant relationship between Empathy and abstract reasoning of secondary school students.

5. There is a positive significant relationship between team capability and abstract reasoning of secondary school students.

6. There is a positive significant relationship between communication and abstract reasoning of secondary school students.

7. There is a positive relationships between self-awareness and scientific reasoning of secondary school students.

8. There is a positive significant relationship between self-regulation and scientific reasoning of secondary school students.

9. There is a positive significant relationship between motivation and scientific reasoning of secondary school students.

10. There is positive significant relationship between empathy and scientific reasoning of secondary school students.

11. There is a positive significant relationship between team capability and scientific reasoning of secondary school students.

12. There is a positive significant relationship between communication and scientific reasoning of secondary school students.

13. There is a positive significant relationship between self-awareness and problem solving of secondary school students.

14. There is a positive significant relationship between self-regulation and problem solving of secondary school students.

15. There is a positive significant relationship between motivation and problem solving of secondary school students.

16. There is a positive significant relationship between empathy and problem solving of secondary school students.
17. There is a positive significant relationship between team capability and problem solving of secondary school students.

18. There is a positive significant relationship between communication and problem solving of secondary school students.

19. There is a main effect of self-awareness on abstract reasoning of secondary school students.

20. There is a main effect of self-awareness on scientific reasoning of secondary school students.

21. There is a main effect of self-awareness on problem solving of secondary school students.

22. There is a main effect of self-regulation on abstract reasoning of secondary school students.

23. There is a main effect of self-regulation on scientific reasoning of secondary school students.

24. There is a main effect of self-regulation on problem solving of secondary school students.

25. There is a main effect of motivation on abstract reasoning of secondary school students.

26. There is a main effect of motivation on scientific reasoning of secondary school students.

27. There is a main effect of motivation on problem solving of secondary school students.

28. There is an interaction effect of self-awareness and self-regulation on abstract reasoning of secondary school students.

29. There is an interaction effect of self-awareness and motivation on abstract reasoning of secondary school students.

30. There is an interaction effect of self-regulation and motivation on abstract reasoning of secondary school students.
31. There is an interaction effect of self-awareness and self-regulation on scientific reasoning of secondary school students.
32. There is an interaction effect of self-awareness and motivation on scientific reasoning of secondary school students.
33. There is an interaction effect of self-regulation and motivation on scientific reasoning of secondary school students.
34. There is an interaction effect of self-awareness and self-regulation on problem solving ability of secondary school students.
35. There is an interaction effect of self-awareness and motivation on problem solving ability of secondary school students.
36. There is an interaction effect of self-regulation and motivation on problem solving ability of secondary school students.
37. There is an interaction effect of self-awareness, self-regulation and motivation on abstract reasoning of secondary school students.
38. There is an interaction effect of self-awareness, self-regulation and motivation on scientific reasoning of secondary school students.
39. There is an interaction effect of self-awareness, self-regulation and motivation on problem solving ability of secondary school students.
40. There is a main effect of empathy on abstract reasoning of secondary school students.
41. There is a main effect of empathy on scientific reasoning of secondary school students.
42. There is a main effect of empathy on problem solving of secondary school students.
43. There is a main effect of team capability on abstract reasoning of secondary school students.
44. There is a main effect of team capability on scientific reasoning of secondary school students.
45. There is a main effect of team capability on problem solving of secondary school students.
46. There is a main effect of communication on abstract reasoning of secondary school students.
47. There is a main effect of communication on scientific reasoning of secondary school students.
48. There is a main effect of communication on problem solving of secondary school students.
49. There is an interaction effect of empathy and team capability on abstract reasoning of secondary school student.
50. There is an interaction effect of empathy and communication on abstract reasoning of secondary school students.
51. There is an interaction effect of team capability and communication on abstract reasoning of secondary school student.
52. There is an interaction effect of empathy and team capability on scientific reasoning of secondary school students.
53. There is an interaction effect of empathy and communication on scientific reasoning of secondary school students.
54. There is an interaction effect of team capability and communication on scientific reasoning of secondary school students.
55. There is an interaction effect of empathy and team capability on problem solving ability of secondary school students.
56. There is an interaction effect of empathy and communication on problem solving ability of secondary school students.
57. There is an interaction effect of team capability and communication on problem solving ability of secondary school students.
58. There is an interaction effect of empathy and team capability on abstract reasoning of secondary school students.

59. There is an interaction effect of empathy, team capability and communication on scientific reasoning of secondary school students.

60. There is an interaction effect of empathy, team capability and communication on problem solving of secondary school students.

1.13. DEFINITIONS OF TECHNICAL TERMS:

Personal and social competencies as defined by Daniel Goleman (1995).

A) Personal Competencies:

- These competencies determine how we manage ourselves

In the present study scores on personal competencies scale determines personal competencies. - Daniel Goleman (1995)

Self-awareness:

- Knowing one’s internal states, preferences, resources and intuitions

In the present study scores on self-awareness dimension of personal competencies determine self-awareness.


Self-regulation:

- Managing one’s internals states, impulses and resources


Motivation:

- Emotional tendencies that guide or facilitate reaching goals


B) Social Competencies:

- The competencies determine how we handle relationships

Social competence refers to the social, emotional and cognitive skills and behaviours that change adaptation.

**Empahty:**
- Awareness of other’s feelings needs and concerns.
  - Danial Goleman (1995)

**Team capabilities**
- Creating group synergy in pursuing collective goals
  - Danial Goleman (1995)

**Communication:**
- Listening openly and sending.
  - Danial Goleman (1995)

**C) Cognitive abilities:**
- Cognitive ability is a thinking ability that enables the individual to acquire and use knowledge about the world.
  - Danial Goleman (1995)

**Abstract Reasoning:**
- Capacity to understand complex concepts and situations
  - Danial Goleman (1995)

**Scientific Reasoning:**
It is the ability to be able to deal with not only objects and experiences but with hypotheses as well, with “the possible as well as the real”.

**Problem solving:**
Problem solving behaviour occurs in novel or difficult situations in which a solution is attainable by the habitual methods of applying concepts and principles derived from past experiences in very similar situations.
  - Woodworth and Marquis (1948)

In the present study personal and social competencies are defined in terms of the scores obtained on personal and social competencies scale.
1.14. OVERVIEW OF THE STUDY:

Chapter-I Introduction deals with introduction, concept of education, aims and objectives of secondary education, significance of personal and social competencies and cognitive ability for secondary students, need and significance of the study. Statement of the problem, scope of the study, objectives of the study, variables of the study, hypotheses of the study and definitions of technical terms.

Chapter-II Review of related literature, deals with studies related to personal competencies, social competencies and cognitive abilities in India and abroad.

Chapter-III Conceptual frame work deals with the meaning of emotional intelligence, origin of emotional intelligence, definitions of emotional intelligence and nature of emotions, major components of emotional intelligence, personal competencies, meaning and definitions and its components, such as self-awareness, self-regulation and motivation, social competencies meaning and definitions and its components, such as empathy, communication and team capabilities. Cognitive abilities with its components such as abstract reasoning, scientific reasoning and problem solving.

Chapter-IV deals with methodology, method of research, descriptive research, sample of the study, tools used for collection of data, construction and validation of social competencies test and scientific reasoning test, collection of data and statistical techniques used for the analysis of the data.

Chapter-V Analysis of data and interpretation of results. Section A deals with correlational analysis, section B deals with interaction analysis.
Chapter-VI Summary and Conclusion deals with introduction, need and importance of the study, conceptual framework, methodology of the study, statement of the problem, results of the study, discussion of the study, conclusions, educational implication, limitations and suggestion for further research.