A STUDY OF THE IMPACT OF COVID-19 ON ACADEMIC ACHIEVEMENT, LEVEL OF ANXIETY AND HAPPINESS LEVEL OF SECONDARY SCHOOL STUDENTS

A Thesis Submitted to
Babu Banarasi Das University
For the Degree of

Doctor of Philosophy

in

Education

by

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June, 2023

CERTIFICATE OF THE SUPERVISOR

This is to certify that the thesis, entitled **"A Study of the Impact of Covid-19 on Academic Achievement, Level of Anxiety and Happiness Level of Secondary School Students"** submitted by **Neetu Tiwari** for the award of Degree of Doctor Philosophy by Babu Banarasi Das University, Lucknow is a record of authentic work carried out by her under my supervision. To the best of my/our knowledge, the matter embodied in this thesis is the original work of the candidate and has not been submitted elsewhere for the award of any other degree or diploma.

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DECLARATION BY THE CANDIDATE

I, hereby, declare that the work presented in this thesis, entitled **"A Study of the Impact of Covid-19 on Academic Achievement, Level of Anxiety and Happiness Level of Secondary School Students"** in fulfilment of the requirements for the award of Degree of Doctor of Philosophy of Babu Banarasi Das University, Lucknow is an authentic record of my own research work carried out under the supervision of **Prof. (Dr.) Kanak Dwivedi**. I also declare that the work em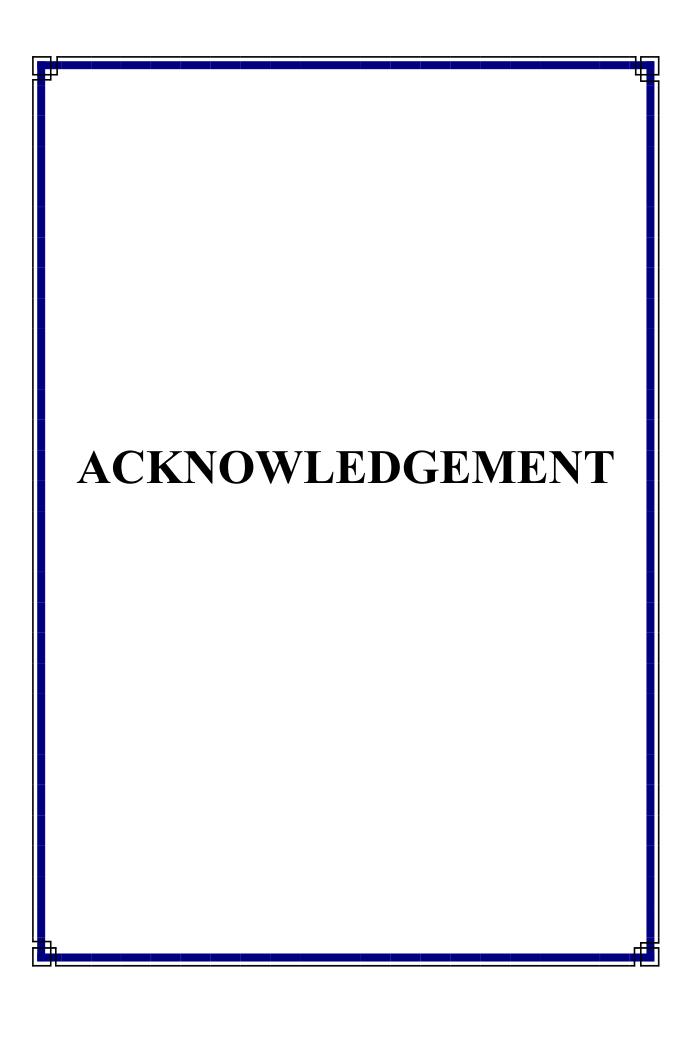bodied in the present thesis is my original work and has not been submitted by me for any other Degree or Diploma of any University or institution.

Date: **Name & Signature of the Candidate**

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

Date: **Neetu Tiwari**

PREFACE

Covid, Corona, Pandemic, these words have become quite common and household name in recent years. It has resulted to a remarkable loss of human life worldwide and presents an unprecedented challenge to public health department, food systems, economies and the world of work. The economic and social disruption caused by the pandemic is devastating for mankind. Tens of millions of people became at risk of falling into extreme poverty and also undernourished. Currently estimated at nearly 690 million people below poverty line, could rise up by 132 million by the end of the year.

All the sections of the society have suffered because of this pandemic whether it is service class, agriculturists, business class or labour class. Millions of enterprises face an existential threat. Nearly half of the world's 3.3 billion global workforce are at risk of losing their livelihoods. Informal economy workers are particularly vulnerable because the majority lacks social protection and access to quality health care and have lost access to productive assets. Without the means to earn an income during lockdowns, many are unable to feed themselves and their families. For most, no income means no food, or, at best, less food and less nutritious food. Covid-19 outbreak has made a significant impact on the mental health, education, and daily routine of students. The Covid-19 related interruptions highlight key challenges and provide an opportunity to further evaluate alternate measures in the education sector. The new policies and guidelines in this direction would help mitigate some of the negative effects and prepare educators and students for the future health crisis.

This has not only affected the lives of adults but also the children and adolescents. It has affected the mental, psychological, emotional, physical and academic aspects of adolescents. The researcher here aims to study the impact of covid – 19 on academic achievement, level of anxiety and happiness level of secondary school students. It was not possible to study too many factors which got affected due to pandemic therefore only three factors were taken under consideration i.e academic achievement, level of anxiety and happiness level. Also these factors were studied on the basis of gender as well as boards (only CBSE and ICSE boards).

The unit of the study were the students studying in class 9th of schools located within Lucknow city and affiliated to CBSE or ICSE board. The primary unit of sample was decided to be schools of Lucknow city. There are large numbers of schools in Lucknow city. They were randomly selected for the research purpose. Preliminary information questionnaire prepared by the researcher. Since this questionnaire was merely for the selection of the sample, therefore no reliability or validity was established. Academic achievement means the general knowledge of the five subjects English, Hindi, Math, Science and Social Studies of class IX level. There are a total of 50 questions, 10 questions from each subject. Comprehensive Anxiety Scale (2002) development by A.K.P. Sinha and L.N.K. Sinha for the adolescent's anxiety level. The modified version of Sinha's Comprehensive Anxiety Scale has been used. To check the level of happiness among the students of secondary school during the pandemic period, a self-prepared tool for level of happiness was constructed. On the basis of these five elements, a questionnaire was prepared. 5 questions for each dimension were asked. Total number of questions was 25.

From the study conducted with the help of a sample it was concluded that the impact of Covid-19 on academic achievement was significant as most of the students have scored average or below average. Most of the student's i.e 45% of the total secondary school students has scored average marks in academic achievement. Only 16.4% of the total students have scored excellent in academics. 43.4% of secondary school students have high anxiety levels. The pandemic has restricted the physical movement of the students which has resulted in the high anxiety level. 14.4% of the students were moderately happy, they enjoyed being active in social media and found many online friends. They got active on these platforms. Most of these people were introverts. Only 3.2% of the secondary school students were found to be happy.

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INTRODUCTION

1.1 COVID-19

Corona or COVID-19 is one word which has been the most used name in the year 2010. People were looking forward for year 2020 as a new era and beginning of new decade, lesser they knew that this will be an year to be remembered for coming centuries. A small microorganism has changed the lives of the entire world.

To elaborate we can say that on the word "CORONA, 'CO' is for corona, 'VI' stands for virus, and 'D' for disease. This disease is caused by the SARS-CoV2 virus. COVID-19 is an acronym. It stands for coronavirus disease of 2019. This name is given by the World Health Organization (WHO) on February 11, 2020 It started in Wuhan, China in late 2019 and has since spread worldwide. This Covid-19 name, was chosen as it didn't refer to a particular geographic location, a specific animal, or a particular group of people. It is a pandemic which has affected millions of lives of the entire world.

A pandemic is an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people.

As all the pandemics do, the COVID-19 has led to a drastic loss of human life and presents an unprecedented challenge to public health, food systems and the world

of work. The economic and social disturbance caused by the pandemic is devastating. The number of undernourished people, currently is nearly 690 million, could increase by up to 132 million by the end of the year.
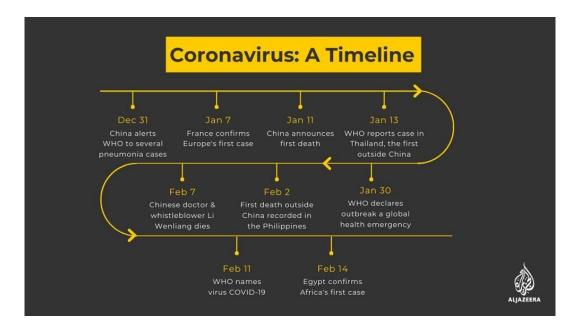
Figure1.1 Corona Virus Timeline

As all the pandemics do, the COVID-19 has led to a drastic loss of human life and presents an unprecedented challenge to public health, food systems and the world of work. The economic and social disturbance caused by the pandemic is devastating. The number of undernourished people, currently is nearly 690 million, could increase by up to 132 million by the end of the year.

3.3 billion workers are at risk of losing their livelihoods. Informal workers are particularly vulnerable because they lack social and legal protection and access to health care and have lost access to productive assets. With lack of the means to earn an income during lockdowns, many are unable to earn for themselves and their families. These results into, no income, no food, or less nutritious food.

The pandemic has resulted into border closures, trade restrictions and adverse effect on education system.

1.2 What is Secondary School Education

Secondary Education takes place after six years of Primary **Education** followed by higher **education**, Vocational **Education** or getting engaged in some sort of employment. In almost all the countries in the world, **secondary education** is compulsory, until the age of 16.

UNESCO is of the view that Secondary School is where children get educated after completing their primary education. Secondary Education is a link between Primary Education and Higher Education. The primary education is to educate the children with the basics of education. Secondary Education takes place when children are in their adolescence. The age of 14 to 18 years is the time when the emotional, physical and mental development takes place in a child at a rapid rate.

Senior Secondary Education is one step high level of Secondary Education. The children in Senior Secondary are about 15 to 18 years of age. It includes the 11th & 12th class. Senior Secondary is also known as High school in different countries.

In the Senior Secondary school, the field of study get divided into different streams like Science, Commerce and Humanities. Students can choose any stream according to their interest and pursue it further for higher studies. The last two years of Secondary school is the Senior Secondary School.

The International Standard Classification of Education (ISCED) describes seven levels of education internationally. In different countries these can be

implemented in various ways, with various age levels and local denominations. The seven levels are listed below:-

Table: 1.1 Seven Levels of Education

LEVEL	EDUCATION
Level 0	Pre-primary education
Level I	Primary Education / first stage of basic education
Level II	Lower secondary / second stage of basic education
Level III	(Upper) secondary education
Level IV	Post-secondary non-tertiary education
Level V	First stage of tertiary education
Level VI	Second stage of tertiary education

The above-mentioned level was approved by the UNESCO General Conference at its 29th session in November 1997. According to this system, Levels I and II, primary education and lower secondary form Basic Education. After that, Secondary Education might comprise of Levels II to IV or Levels II and III, or Level II alone.

Another feature of Secondary Education is that from the single-class-teacher, who delivers all content to pupils, i.e. she/he deals with all the subjects to one where content is delivered by different subject specialists/ experts. Its educational aim is to lay the foundations for lifelong learning.

Lower secondary education can be attained by a child only after 6 years of primary education. The teachers are also more qualified than the teachers of Primary Education. They are subject experts and specialized in their subject. Thus, in secondary education, the child has multiple teachers who are experts of their field.

(Upper) secondary education or level III starts after the completion of basic education and completion of lower secondary education or second stage of basic education. Education at this level is not compulsory but voluntary. The child can enter in (Upper) secondary education only after completion of nine years of basic education (first and second stage). The ideal age for this level is between 14 and 16 years. The teachers eligible for this level should have level V qualifications in the subject they are teaching. After this level, either they can go for level IV or V or start their job/ get employed.

Terminology used for secondary schools differs according to the country.] Secondary schools may also be called as high schools, academies, preparatory school, vocational school, sixth form college, upper school, gymnasiums, middle school, college, inter college or lyceums among other names.

The Secondary education covers two phases on the International Standard Classification of Education scale. The lower secondary education or Level II or is the second and final stage of basic education, and (upper) secondary education or level III is the stage before tertiary education. Aim of every country is to provide basic education. Most of the countries have made it compulsory and many of them has made it free. There was no universal definition before ISCED divided the period between primary education and university into junior secondary education and upper secondary

education. In ancient times secondary education was the privilege of higher class of the society. Generally middle and lower class did not have access to secondary education. After completing their basic or primary education, they used to go for employment. Even in the higher or privileged class, selected few went for secondary education. Also, the education was the responsibility of church. With the Reformation the state or the government took the control of learning from the church and decentralised it. Till the middle of the 19th century, secondary schools were organised to satisfy the needs of different social classes with the labouring classes getting four years, the merchant class five years and the elite class seven years of education. The rights and access to secondary education were codified after 1945.

1.2.1 Indian Education system:-

The Indian education system has been broadly divided into 8 parts. Briefly discussed as under:

- **Play Schools**: The age group for this is children between 18 months to 3 years.

- **Kindergarten**: This is divided into two parts. (i)

  - lower kindergarten (children who are three to four years old)

  - upper kindergarten (children who are four to five years old)

- **Primary school**: First to fifth grade / class / standard (children who are six to ten years old)

- **Middle school**: Fifth to eighth grade / class / standard (children who are 11 to 14 years old)

- **Secondary school**: Ninth and tenth grade / class / standard (children who are 14 to 16 years old)

- **Higher secondary or pre-university**: 11th and 12th grade / class / standard (children who are 16 to 17 years old). In this grade, students choose their area of specialization according to their interest and aptitude.

- **Undergraduate**: it is the degree of graduation in different streams. Most of the courses take three years to complete but in some vocational courses it might take 4-5 years.

- **Postgraduate**: It is generally a two year course.

1.2.2 Secondary Education in India: -

According to the Census of India 2001, 88.5 million children are of the age of 14 to 18years, this is the age group of Secondary Education. The final two years of secondary is also known as Higher Secondary (HS), Senior Secondary, or simply the "+2" stage. It is an important stage as only after passing this one can go for higher education including vocational and academic courses.

The eligibility to appear for secondary board exam is that one should be at least 15 years old by 30 May for a given academic year. State boards, International board, CBSE and ICSE are the recognized agencies to conduct this exam. Also, those who are17 years of age by the same date are eligible to appear for Higher Secondary certificate board exams. After successful completion of Higher Secondary course, one can apply to higher education under UGC control such as various Academic courses, Business Administration, Medical, Engineering, Law etc.

Secondary Education is split into 2 parts –

a) grades 9-10

b) grades 11–12

1.2.3 The Secondary Stage –

The Secondary Stage of education in India starts with **classes VIII to X**. The age group of the children in secondary education is between 14-16 years. Those schools which impart education up till X class are known as High Schools, Senior Schools, Secondary Schools etc.

1.2.4 Senior Secondary Stage –

In India the Senior Secondary Education is of only two years. This is uniform throughout the India. It includes **classes XI to XII**. The age group of the children in secondary education is between 16-18 years. At this level of education students are free to choose their stream and subjects. They can pursue Humanities, Commerce, Science (medical & non-medical). The schools which impart education up till XII class are known as Higher Secondary Schools or Senior Secondary Schools. Few universities and colleges also offer education of these classes.

One of the sections which was greatly affected by pandemic is the student community and especially the secondary student community. At the secondary level, the age of the student is very tender, they have already entered into the adolescence age. This age is also known as age of stress and storm. As it is, they are dealing with multiple hormonal, mental, emotional, physiological changes. This pandemic has restricted their

social interaction with the peer. They are confined to their houses with almost nil social interaction as the school and coaching centres are closed. The only source is either social media or various sources of communication like mobile phones. They have even lost the direct, face to face interaction with their teachers. The life style has been greatly hit by these online classes. There is no hurry to get up early and take bath, get ready to go to the school. Students has got the liberty to get up at their time of convenience and delay their daily routine. Parents too are either engaged in their online office or doing household chores.

1.3 Academic Achievement:

Any study or learning is considered to be unfinished until and unless it is completed by the assessment. Assessment or evaluation is an integral part of learning.

The fear of exam has also reduced. Board exams are cancelled and other exams also have lots of scope of copying or cheating. Students have lost the art of writing. They are mostly typing and with the virtue of auto correct now they need not to remember the spellings too.

Due to online classes, students now have now full access to internet and mobiles/ laptops. Since parents are also busy with their online office, they are unable to keep a strict eye on the online activities of their children. Taking the plea of getting assignments, students are always active on social media. This has exposed internet to all the students without any restrictions.

The schools are organizing online classes on ZOOM, Google Classroom, Webex Meet etc. online education do provide knowledge to the students but the overall

development of the child is missing in this mode of education. The theoretical material will be given on time to students, but the overall development of students will be missing here. Schools are expected to provide not only knowledge to the students but also values are imparted through various activities like debate competitions, poster competitions dance and song competitions etc. all these things remain restricted in online classes. Students are devoid of the actual work environment of a school or college. Numerous social and cultural activities will be missed. The students lack discipline also. They do not wake up early as they do not have to physically go to the school. Thus, the time of travelling is saved. This results into the fact that many students just get up from the bed and start attending the online classes. They also tend to switch off their cameras as they do their daily chores while attending the class. Moreover, in these types of online classes, the class is less interactive and instead of two-way learning, it is the teacher who plays an active role as student seems to take a back seat. Similarly, on the part of teachers, they are not well versed with the online classes. Teaching on the camera is a new concept for them. Also, there are many teachers who are not well versed with the technology and it a very difficult and tedious task for them to take online classes. Most of the online classes are taken through PowerPoint presentations and this has further increased the workload of teachers. We will not further dig the matter of teachers as we will be concentrating on the perspective of students.

1.4 Anxiety

Anxiety is a normal and often healthy emotion. However, when a person regularly feels disproportionate levels of anxiety, it might become a medical disorder.

When an individual faces potentially harmful or worrying triggers, feelings of anxiety are not only normal but necessary for survival.

The causes of anxiety disorders are complicated. Many might occur at once, some may lead to others, and some might not lead to an anxiety disorder unless another is present.

Possible causes include:

- environmental stressors, such as difficulties at work, relationship problems, or family issues

- genetics, as people who have family members with an anxiety disorder are more likely to experience one themselves

- medical factors, such as the symptoms of a different disease, the effects of a medication, or the stress of an intensive surgery or prolonged recovery

- brain chemistry, as psychologists define many anxiety disorders as misalignments of hormones and electrical signals in the brain

- withdrawal from an illicit substance, the effects of which might intensify the impact of other possible causes

Researchers have looking at the correlation of anxiety sources and the effect of students' academic performance, in term, students' high level of anxiety achieved low academic performance (Luigi, Francesca, Maria, Eleonora, Valentina and Benedetto, 2007; McCraty, 2007). High level of anxiety also interferes with concentration and memory, which are critical for academic success. However, most of students would

lack the concentration of study because of exam anxiety, social anxiety, mathematic anxiety, and many anxiety sources. Feeling discomfort and anxious in the classroom does not enhance learning of any kind. The anxiety's psychological symptoms among students include feeling nervous before a study class, panicking, going blank during a test, feeling helpless while doing assignments, or lack of interest of subjects difficult whereas the physiological symptoms include sweaty palms, racing heartbeat, or an upset stomach. Anxiety is a psychological and physical response to treat a self-concept characterized by subjective, consciously perceived feelings of tension (Spielberger, 1983). Anxious students have experience of cognitive deficits like misapprehension of information or blocking of memory and recall. Speilberger reported two forms of anxiety: state anxiety – a response to a particular stimulation or set of circumstances, and trait anxiety – an intrinsic characteristic of the person. Previous anxiety research suggests that there are roughly two types that can be experienced at different psychological levels (Spielberger, 1966). Hancock concludes that students with high level anxiety show significantly less motivation in classrooms perceived as highly evaluative compared to students with low level anxiety (Hancock, 2001).

Anxiety disorders are among the most frequent psychiatric conditions in humans and cause loss of quality of life. Anxiety disorders represent a huge burden in terms of both their social impact and their economic cost. Anxiety disorder is a kind of mental disorder. Anxiety is a worry that can make us distressed and affect our future life. High stress amongst university students is a serious public health issue, with university students reporting higher chronic stress than the general population. We react to anxiety by fearing and these feelings can cause some physical symptoms such as quicker pulse rate and tremor. Youth is a life period where individuals experience

multiple stressors due to their develop mental stage, adjustment to new college environment, academic expectations, and their specific higher education program of study.

An emotion which is dominant among adolescents is anxiety. Anxiety is a type of normal emotion. It's our brain's way of reacting to stress and alerting us of expected danger. It is a common emotion and every single human being undergoes it at some point of time. There are different symptoms of anxiety such as Feeling stressed, overwhelmed, worry, Racing thoughts, Sadness, tearfulness, loss of interest, increased heart rate, stomach upset, fatigue, Frustration, irritability, anger, Restlessness, agitation, feeling of helplessness, Difficulty in concentrating, sleeplessness, feeling socially disconnected etc.

Anxiety disorders are very common during the adolescence period.

If not treated early, anxiety disorder can lead to repeated school absenteeism and inability to complete education. Some affected children have troubled relationship with their peers, others might have low self-esteem.

1.5 Happiness

According to Aristotle," Happiness is the meaning and the purpose of life, the whole aim and end of human existence. It depends upon ourselves." He described four different levels of happiness. Indians have believed in concept of happiness from ancient times. The ultimate goal of life is to attain happiness. Happiness increases the ability and capability to work. It also reduces the physical ailment and improves the

mental health. Its very essential for adolescents to be happy so that there is no hurdle in achieving their goal.

1.6 Need of the Study:

The pandemic has affected the students in a positive as well as negative way. Adolescent age is as it is a very sensitive age and this pandemic has immensely affected their social, emotional, academic and psychological aspect. It is very essential to know the impact of online mode of imparting education. This can be done only through administering academic achievement test. Academic achievement test will also be an evidence of effect of pandemic on the quality of education.

Anxiety is one of the psychological factors which is very dominant during adolescent period. Due to lockdown, the students have been restricted to homes surrounded by the parents and siblings and almost to touch with the friend circle. It has also restricted the physical activities like sports. This might have affected the anxiety level of the students. The disturbed routine life also hampers the level of anxiety.

Lockdown has also affected the level of happiness among the adolescents. Since the level of happiness is positively related to the academic achievement of the students, its very essential to be happy. It is important to know the level of happiness among the secondary school students.

There is a need to study how COVID-19 pandemic has effected the lives of secondary school students specially their academic achievement, anxiety level and level of happiness. The current study deals with the same.

1.7 Statement of the Problem:

"A Study of the Impact of Covid – 19 on Academic Achievement, Level of Anxiety and Happiness Level of Secondary School Students."

1.8 Objectives of the Study:

1) To study the impact of pandemic (COVID-19) on academic achievement of secondary school students in Lucknow City.

2) To study the impact of pandemic (COVID-19) on anxiety level of secondary school students in Lucknow City.

3) To study the impact of pandemic (COVID-19) on level of happiness of Secondary School students.

4) To study the impact of pandemic (COVID-19) on academic achievement of Secondary School students with respect to their

    a. Gender

    b. Board

5) To study the impact of pandemic (COVID-19) on anxiety level of Secondary School students with respect to their

    a) Gender

    b) Board

6) To study the impact of pandemic (COVID-19) on level of happiness of Secondary School students with respect to their

    (a) Gender

    (b) Board

1.9 Hypothesis:

1) The secondary school students score average in academic achievement during pandemic (COVID-19) period.

2) The secondary school students have high anxiety level during pandemic (COVID-19) period.

3) The secondary school students have low level of happiness during pandemic (COVID-19) period.

4) **(a)** There is no significant difference between academic achievement of boys and girls of secondary school students during pandemic (COVID-19) period.
   (b) There is no significant difference between academic achievement of CBSE and ICSE board students of secondary schools during pandemic (COVID-19) period.

5) **(a)** There is no significant difference between anxiety level of boys and girls of secondary schools during pandemic (COVID-19) period.
   (b) There is no significant difference between anxiety level of CBSE and ICSE board students of secondary schools during pandemic (COVID-19) period.

6) **(a)** There is no significant difference between level of happiness of boys and girls of secondary schools during pandemic (COVID-19) period.
   (b) There is no significant difference between level of happiness of CBSE and ICSE board students of secondary schools during pandemic (COVID-19) period.

1.10 Delimitations

- The study has been delimited to senior secondary school students of class 9th of Lucknow city.

- Reliability and validity of the tools have been taken as prepared by the makers of the test.

- Students of schools of CBSE and ICSE board are surveyed. state board schools are not considered.

- The pandemic period (COVID-19) is the period from 24.03.2020 till 30.04.2021.

1.11 OPERATIONAL DEFINITIONS:

ACADEMIC ACHIEVEMENT: The general knowledge of the five subjects English, Hindi, Maths, Science and Social Studies of class IX level.

ANXIETY: Anxiety in this research is measured using the comprehensive anxiety scale developed by A.K.P Sinha and L.N.K Sinha for the population of adolescents to measure their manifested anxiety level.

SECONDARY SCHOOL STUDENTS: Secondary school Students is defined as students who are studying in class 9th of Lucknow city only of CBSE and ICSE board. State board students are not surveyed.

PANDEMIC PERIOD COVID-19: The pandemic period (COVID-19) is the period from 24.03.2020 till 30.04.2021.

CHAPTER – 2
REVIEW OF RELATED LITERATURE

CHAPTER – 2

REVIEW OF RELATED LITERATURE

2.1 What is literature?

Literature is a collection of published information/materials on a particular area of research or topic, such as books and journal, webpages, slides, articles etc which have academic value.

2.2 What is literature review?

Literature is the piece of writing which is the creation of someone's creative thinking. A literature review is a piece of academic writing demonstrating knowledge and understanding of the literature on a specific topic. it is a study or search and evaluation of the available literature in the given topic, subject or area.

2.3 Why Literature review?

The main objectives to do the review of related literature are stated below:

- To know about the different aspects of the area of study.

- To synthesise the information related to the topic into a summary.

- To know about the views of learned people on the chosen topic.

- To know about the different methodologies and techniques associated with that topic.

- To have different ideas related to the said topic.

- To have the in-depth knowledge of the said topic.

- To prevent the duplication.

- To identify the gap between the researches.

- To identify and justify the purpose of current research.

2.4 STUDIES RELATED TO EFFECTS OF COVID-19

Heba Bakr Khoshaim, Areej Al- Sukayt, Karuthan Chinna, Mohammad Nurunnabi, Shee Sundarasen, Kamilah Kamaludin, Gul Mohammad Baloch and Syed Far Abid Hossain (2020) The study was conducted between March and June 2020 Anxiety Level of University Students During COVID-19 in Saudi Arabia. In this study, the Zung self-rating anxiety scale was used to determine the anxiety levels among the respondents. The results indicated that about 35% of the students experienced moderate to extreme levels of anxiety. Anxiety was highly associated with age, sex, and level of education. These findings can enlighten government agencies and policy makers on the importance of making prompt, effective decisions to address students' anxiety during the COVID-19 pandemic. Researchers are encouraged to focus their future studies on how to develop strategies to boost students' resilience and enhance their adaptability skills for similar disasters in the future**.**

Muhammad Ghani (2020) conducted research for Identifying Study Anxiety Sources among University Students This study is part of a more comprehensive project that aims to address the psychological well-being of university students in several parts of the world during COVID-19. The results of this study give valuable insights into the psychological status of students at a crucial time, and this, of course, has its own merit. However, it is equally crucial that future researches focus on and suggest solutions to address any effects associated with pandemics. It is important to identify appropriate strategies that could help students not only cope with adverse effects of the current pandemics but that can also enhance students' resilience to similar disasters in the future. Parents, educators, and the society as a whole should identify ways to enhance students' adaptability skills that will enable them to cope in such situations.

The respondents are 770 students, consist of 395 males and 375 females. The respondents are first year on second semester degree undergraduate students in five engineering faculties at University Malaysia Pahang. The specification of respondents, mean that to categorize the respondent into one classification such year of level, undergraduate students, and engineering students. Actually, the survey is a first step to identify the study anxiety sources before conducted the experiment. Therefore, the respondent should be match between survey and experiment.

Md. Akhtarul Islam, Sutapa Dey Barna, Hasin Raihan, Md. Nafiul Alam Khan, Md. Tanvir Hossain (20201) conducted a survey on Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: A web-based cross-sectional survey. The purpose of this study was to investigate the prevalence of depression and anxiety among Bangladeshi university students during the

COVID-19 pandemic. It also aimed at identifying the determinants of depression and anxiety. A total of 476 university students living in Bangladesh participated in this cross-sectional web-based survey. A standardized e-questionnaire was generated using the Google Form, and the link was shared through social media—Facebook. The information was analyzed in three consecutive levels, such as univariate, bivariate, and multivariate analysis. Students were experiencing heightened depression and anxiety. Around 15% of the students reportedly had moderately severe depression, whereas 18.1% were severely suffering from anxiety. The binary logistic regression suggests that older students have greater depression (OR = 2.886, 95% CI = 0.961–8.669). It is also evident that students who provided private tuition in the pre-pandemic period had depression (OR = 1.199, 95% CI = 0.736–1.952). It is expected that both the government and universities could work together to fix the academic delays and financial problems to reduce depression and anxiety among university students.

Gunther Eysenbach, Guy Fagherazzi, and John Torous (2021), conducted a survey study on Effects of COVID-19 on College Students' Mental Health in the United States: Interview Survey Study. Of the 195 students, 138 (71%) indicated increased stress and anxiety due to the COVID-19 outbreak. Multiple stressors were identified that contributed to the increased levels of stress, anxiety, and depressive thoughts among students. These included fear and worry about their own health and of their loved ones (177/195, 91% reported negative impacts of the pandemic), difficulty in concentrating (173/195, 89%), disruptions to sleeping patterns (168/195, 86%), decreased social interactions due to physical distancing (167/195, 86%), and increased concerns on academic performance (159/195, 82%). To cope with stress and anxiety, participants have sought support from others and helped themselves by adopting either

negative or positive coping mechanisms. Due to the long-lasting pandemic situation and onerous measures such as lockdown and stay-at-home orders, the COVID-19 pandemic brings negative impacts on higher education. The findings of this study highlight the urgent need to develop interventions and preventive strategies to address the mental health of college students.

Salari Nader, Hosseinian Amin, Jalali Rostam, Vaisi-Raygani Aliakbar, Rasoulpoor Shna, Mohammadi Masoud, Rasoulpoor Shabnam & Khaledi-Paveh Behnam (2019) conducted a systematic review on Far Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis. The prevalence of stress in 5 studies with a total sample size of 9074 is obtained as 29.6% (95% confidence limit: 24.3–35.4), the prevalence of anxiety in 17 studies with a sample size of 63,439 as 31.9% (95% confidence interval: 27.5–36.7), and the prevalence of depression in 14 studies with a sample size of 44,531 people as 33.7% (95% confidence interval: 27.5–40.6). COVID-19 not only causes physical health concerns but also results in a number of psychological disorders. The spread of the new coronavirus can impact the mental health of people in different communities. Thus, it is essential to preserve the mental health of individuals and to develop psychological interventions that can improve the mental health of vulnerable groups during the COVID-19 pandemic.

Nandan Akanksha (2020), a research on A Comparative Study of Academic Performance Anxiety Study Habits and Attitudes Among High School and Intermediate Students in Pre COVID 19 Condition was conducted in Bahraich district. A sample of 100 school going students from three schools with high school and

intermediate classes (50 students from each class) were included in the study. A standardized tool used the General Anxiety Scale For Children and for socioeconomic profile, academic performance, study habits and attitudes, anthropometric measurements questionnaire used to elicit information. The data collected was analyzed and it was found that majority of children belonged to general category (49%), followed by OBC (38%) and (13%) SC/ST. The children were from nuclear family (67%), joint family (33%), with family size is 3 to 4 members (59%), 5 to 8 members and 9 to 12 members (15%). Majority of fathers were educated up to graduate (46%), father's occupation was business (%) and mother (39%) were also educated up to graduation but majority of mothers were housewife (62%). Academic performance of the students the grades obtained class wise it was found that more students of intermediate scored 71-80% marks (A grade) than the high school children, High school students and intermediate students who got marks 61-70% (B+ Grade) was 30 and 47 in number. The anxiety level amongst intermediate students (30%) was very high whereas high school has average anxiety (42%). It was found that the mean height of high school was 157.1cm , mean weight was 50.4 kg and mean BMI of 20.4 and amongst intermediate students the mean height was 164.7 cm, mean weight 57 kg and mean BMI 21.The BMI of 95 per cent students were normal and only two per cent who was obese. Attitude towards education the students who felt that education was about bookish knowledge and a waste of time and energy. The high school students' habit of taking frequent breaks while studying (84%) and Study in quiet peaceful atmosphere whereas intermediate students prefer classical music without lyrics to be played while study (rank I) with mean score is 0.92 (92%), study in quiet peaceful atmosphere.

2.5 STUDIES RELATED TO ANXIETY AMONG STUDENTS

Mohamad Nurul Elyani, Mohd Sidik Sherina, Akhtari-Zavare Mehrnoosh & Abdul Gani Norsidawati (2021), conducted a study on the prevalence risk of anxiety and its associated factors among university students in Malaysia: a national cross-sectional study. The response rate was 97.90%, where 1821 out of 1860 students participated in the study. The prevalence risk of anxiety in this study was recorded at 29%. The data revealed that academic year, financial support for the study, alcohol consumption, poor sleep quality, body mass index (BMI), having a good friend in the university, having doubt regarding the future, actively involved in the society, and having problems with other students and lecturer(s) were significantly associated with risk of anxiety; with the academic year as the primary predictor. The findings highlight the current prevalence risk of anxiety among university students in Malaysia. The outcome of this study can serve as the evident baseline data and help with the development of specific interventions in addressing and managing the issue appropriately.

Benjamin J. England, Jennifer R. Brigati, Schussler E. Elisabeth, Chen M. Miranda (2019) conducted a research on Student Anxiety and Perception of Difficulty Impact Performance and Persistence in Introductory Biology Courses. Students respond to classroom activities and achievement outcomes with a variety of emotions that can impact student success. One emotion students experience is anxiety, which can negatively impact student performance and persistence. This study investigated what types of classroom anxiety were related to student performance in the course and persistence in the major. Students in introductory biology classes self-reported their

general class, test, communication, and social anxiety; perceived course difficulty; intention to stay in the major; and demographic variables. Final course grades were acquired from instructors. An increase in perception of course difficulty from the beginning to the end of the semester was significantly associated with lower final course grades ($N = 337$), particularly for females, non-Caucasians, and students who took fewer Advanced Placement (AP) courses. An increase in communication anxiety slightly increased performance. Higher general class anxiety at the beginning of the semester was associated with intention to leave the major ($N = 122$) at the end of the semester, particularly for females. Females, freshmen, and those with fewer AP courses reported higher general class anxiety and perceived course difficulty. Future research should identify which factors differentially impact student anxiety levels and perceived difficulty and explore coping strategies for students.

Vitasari Muhammad Nubli, Abdul Wahab, Ahmad Othman, Tutu Herawan, Suriya Kumar Sinnadurai (2019) conducted a survey on The Relationship between Study Anxiety and Academic Performance among Engineering Students. This research observes the relationship between study anxiety level and students' academic performance. The test to find out a significant correlation of anxiety and academic performance was has carried out among engineering students. A total 205 males and female student participated in this test. They were second year students from four engineering faculties at University Malaysia Pahang (UMP). The study anxiety level was measured using State Trait Anxiety Inventory (STAI). Meanwhile, students' academic performance was measured using Grade Point Average (GPA). The results showed that there was a significant correlation of high-level anxiety and low academic performance among engineering students, with significant correlation (p = 0.000) and

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the correlation coefficient is small with r = -.264. Large of sample size required to strengthen the coefficient correlation was suggested for further research.

Yadav Prateek, Chauhan Vinay Sigh, Bhat BP, Agarwal Nidhi, Yadav Charu, Bhatia Sameer (2019), conducted a Cross-sectional study of anxiety symptoms in students in pre examination period. This study aimed to assess the presence of anxiety symptoms in students in pre-examination period. Totally 170 children (27.5%) had anxiety symptoms, similarly the various subgroups had increased frequency compared to the known prevalence in this age group. Age, years spent in the current school, living with parents, presence of domestic stressors, and grade deterioration, all were significantly associated with increased frequency of these symptoms. Similarly, association with various subgroups is described. This study attempts to give evidence of increased anxiety symptoms, during pre-examination phase, compared to the reported prevalence in this age group, and thus to address this becomes imperative which will improve their performance and also the mental health preventing distress along with psychological and behavioral problems.

AlKandari Nabila Y. (2020), conducted a study on Students Anxiety Experiences in Higher Education Institutions, Students studying at higher education institutions face many challenges. Students who attempt to overcome these challenges may alter their behaviors. This may negatively affect their psychological state and cause them to feel anxiety. Anxiety is most prominent among college students. Many students face anxiety when they think they cannot achieve their academic or non-academic purposes; however, sometimes anxiety can encourage students to think more critically about how to achieve their goals. Students cope with anxiety in different

ways, but some may struggle. This probably causes many symptoms that affect their mental health. Therefore, they should alleviate the anxiety to keep their mental health and persist in the institution.

Sahu,Saroj (2015), conducted a research on Academic anxiety among school students of Chhattisgarh role of personality culture and gender. The study has investigated the role of personality, culture and gender in academic anxiety of school students. The study has also examined the role of culture and gender in academic achievement. The results of the present study have given very important information for minimizing the academic anxiety. Academic anxiety has been found to be associated with several types of personality factors. These results give insight as to how we can minimize their academic anxiety by providing them such environment which should be responsible for generating less academic anxiety. The study may prove its high significance to minimize academic anxiety and to develop personality that would help in academic achievement.

John (2019) Impact of progressive muscle relaxation training PMRT and yoga practice on Academic anxiety health and wellbeing Among school students. The main goal of the study was to investigate the impact of Progressive Muscle Relaxation Training (PMRT) and Yoga practice on academic anxiety, health and wellbeing among school students. The findings of the study are seen in four ways: First, effect of PMRT on academic anxiety, health and wellbeing. Second, effect of Yoga on academic anxiety, health and wellbeing. Third, controlling experiment. And fourth, comparing the three groups. The results showed that there was significant positive effect of PMRT on all the three variables i.e. academic anxiety, health and wellbeing. Similarly, there

was a significant effect of Yoga on academic anxiety, health and wellbeing. There was no significant effect on all three variables in control group making the effect observed in PMRT and Yoga authentic and true. And on the group's comparison, the groups were found different from each other except that on academic anxiety, both PMRT and Yoga groups were not found different from each other. All the findings are as under: 1. There are different levels of academic anxiety, health and wellbeing among school students. 2. PMRT intervention reduces academic anxiety and improves health and wellbeing of school students. 3. Yoga intervention reduces academic anxiety and improves health and wellbeing of school students. 4. There is no significant change in academic anxiety, health and wellbeing of school students in control group. This could be because of lack of any intervention to the group. 5. There is also found no significant difference in the level of academic anxiety, health and wellbeing among all three groups in pre-test condition. 6. There is significant difference in the levels of academic anxiety, health and wellbeing of school students in all three groups in the post test condition. This difference could be because of interventions in the two experimental groups. 194 7. The level of academic anxiety reduced in Group I (PMRT) as compared to Group III (control). This could be because Group I received PMRT intervention but Group III (control) did not. 8. The level of health and wellbeing improved in Group I (PMRT) as compared to Group III (control) between pre and post-test condition. This could be because Group I received PMRT intervention but Group III (control) did not. 9. The level of academic anxiety reduced in Group II (Yoga) as compared to Group III (control) between pre and post-test condition. This could be because Group II received Yoga intervention but Group III (control) did not. 10. The level of health and wellbeing improved in Group II (Yoga) as compared to Group III

(control) from pre to post-test condition. This could be because Group II received Yoga intervention but Group III (control) did not. 11. There is non- significant difference between PMRT and Yoga effects on academic anxiety of school students. 12. There is significant difference between PMRT and Yoga effects on health and wellbeing of school students.

Suganthi V (2021), Efficacy of Cognitive Behaviour Therapy in Managing Stress Anxiety Loneliness and Enhancement of Assertiveness among Sexually Abused Girl Children From Corporation High school Ramalingam Colony, Corporation SRP Ammaniammal Girls Higher Secondary School, Corporation Girls Higher Secondary School, Ranganathapuram, Corporation Girls Higher Secondary School, R. S. Puram, Coimbatore, Tamil Nadu, 500 school girl students studying in class VI to VIII (age group ranging from 10 years to 13 years) from four schools newline were screened for Stress Inventory and State Trait Anxiety Inventory (STAI). Out of them, 108 School Girl Children with Very High to Moderate level of Stress and Anxiety and sexually abused girls were selected for the study and Loneliness Inventory and Assertiveness Scale were also administered as a psychological intervention Cognitive Behaviour Therapy and Relaxation Therapy was used. Four sessions of Cognitive Behaviour Therapy were given to the students in one week, with each session newline lasting for 2 - 2 ½ hours. After two weeks, the students were reassessed for Stress Inventory and State Trait Anxiety Inventory. Initially, few of the students had Very High and High stress and few of the sample had High and Moderate Anxiety. After Cognitive Behaviour Therapy, it got reduced to low stress and anxiety. The differences in mean Stress Inventory, State Trait Anxiety Inventory, Loneliness Inventory and Assertiveness Scale after Cognitive Behaviour Therapy were statistically significant.

There was a significant difference among Sexually Abused Girl Children during Before, After and Follow-up through Cognitive Behaviour Therapy.)

Jadhav, Sumedha Champatrao, (2011), A study of achievement motivation assertiveness and anxiety level of professional and nonprofessional college students. 1. Professional college students have low anxiety than nonprofessional college students. 2. There is no difference between male and female professional and nonprofessional college students in terms of their anxiety level. 3. Socioeconomic status may be high or low made no effect on anxiety level. 4. Professional college students are more assertive than nonprofessional college students. 5. Gender has do not impact on assertiveness. 6. High SES students are more assertive than low socioeconomic status students. 7. Professional college students are highly motivated in their achievements than nonprofessional college students. 8. Gender is no contributing factor to decide professional and nonprofessional college student's achievement need. 9. Socioeconomic status of professional and nonprofessional college students has no impact on need for achievement. 10. There is negative relationship between anxiety and assertive behaviour of professional and nonprofessional college students. 167 11. There is positive and significant relationship between anxiety and need for achievement of professional and nonprofessional college students. 12. There is positive and significant relationship between need for achievement and assertive behaviour of professional and nonprofessional college students.

Shukla, Janette U, (2014), Study of the examination anxiety among the secondary school students in the context of some variables. Outcomes of the Study: The importance of the research is related to outcomes of the research. Generally, there

are two kinds of outcomes: (1) Outcome in the form of Tool of Research and (2) Outcome in the form of Program of Research. The outcome of the present research is in the form of Tool of Research. The researcher constructed and standardized the Examination Anxiety Scale. The Examination Anxiety Scale was constructed to measure examination anxiety of secondary school students. It is an attitude scale having five-point ratings: (1) Total agree (2) Agree (3) Neutral (4) Disagree (5) Total disagree. The Examination Anxiety Scale was classified into three phases: (1) Anxiety before examination (2) Anxiety during examination (3) Anxiety after examination. Test –Retest reliability of the Scale is 0.573 and Spearman-Brown Split-Half reliability of the Scale is 0.68. Concurrent validity of the Examination Anxiety Scale is 0.81.

Bhut, Nikunj N, (2015), The impact of meditation on stress anxiety and frustration among college students, In the present investigation it was found that though the place, timing, instructions and environment were kept constant, some subject were tensed with the annual examination anxiety. Most of the subjects reported in their introspective reports that while performing meditation their main stream of thoughts was ensuing examination. Thus, it is suggested that such experiments may be carried out in the vacation period when the subject do not have any compulsory things hanging on their minds. It is said that along with other physiological and environmental aspects that mental set of the subject plays an important role in such experiments. To maintain this, if possible, such meditation camps can be arranged either on hill stations or at the bank of river, or sea. Forest atmosphere can also be utilized. While making arrangements if the subjects are cut-off from the mundane daily routine activities, they can be given more benefits of the meditation. Along with this if the subjects are given more theoretical knowledge by way of lectures and question answer 211 sessions the

process can be made clearer and more scientific. In question answer sessions individual guidance can be provided to the subjects.

Mubeen Banu K, (2013), Positive Therapy for the Enhancement of Adjustment Self Esteem and Management of Anxiety in Adolescents, After Positive Therapy, majority of the Adolescents Adjustment level enhanced to 'Good'/'Excellent' levels The most important causes of poor adjustment were lack of clear understanding and healthy support from the family members The effects of poor adjustment were lack of active participation at school, frustration etc. After Positive Therapy, majority of the Adolescents Self-esteem had drastically enhanced to 'High Self-esteem' After Positive Therapy, majority of the Adolescents Anxiety level reduced to 'Low'/'Very Low' levels After Positive Therapy, majority of the Adolescents Academic Achievement had improved drastically Physiological, Emotional, Cognitive and Behavioural Symptoms of Anxiety among the Adolescents had reduced drastically There is a correlation between the Adjustment and Self-esteem, Anxiety and Self-esteem, Adjustment and Anxiety before Positive Therapy.

Arti Pasricha, (2015), Study of academic stress and self-efficacy in relation to study habits personality and academic achievement of adolescents, to reduce the academic stress schools should use different strategies to overcome this. Thus, it is the duty of family and schools to provide stress free and congenial environment to students for their academic growth and well-being. School authorities and teachers may keep in mind that the students are not overloaded with work as it may negatively affect their efficiency. The ideas of students should also be taken into consideration while framing curriculum. Students should also be given enough freedom to incorporate their

innovative ideas to make classroom teaching interesting. Introverts are more academically stressed than extroverts. School authorities and parents should provide proper opportunities to introvert students to vent out their feeling. Counseling centers should be placed in all Senior and senior secondary Schools to help such student build their positive self-concept as well as helping students cope with stress. Quiz competitions, class presentations and inter school debates should be organized for students in order to release them from distress and enhance their academic performance.

2.6 STUDIES RELATED TO ACADEMIC ACHIEVEMENT OF THE STUDENTS

Chandel, Nisha, (2019), Effect of Rajyoga meditation on cognitive capabilities emotional intelligence and academic achievement of adolescents, this study was carried out to find out the effect of Rajyoga Meditation on cognitive capabilities, emotional intelligence and academic achievement of adolescents on 82 adolescents in Hamirpur District of Himachal Pradesh. The results indicated a significant improvement in adjusted mean scores of memory, attention, executive function and creativity dimension of cognitive capabilities, emotional intelligence and academic achievement of adolescents for pre-test and immediate post-test period. Moreover, significant improvement was reported in the scores of executive functions, creativity dimension of cognitive capabilities, emotional intelligence and academic achievement of adolescents during the pre-test and delayed post-test period. In case of immediate post-test and delayed post-test period, significant improvement was reported in the scores of executive functions, creativity dimension of cognitive capabilities, and academic

achievement of adolescents during the immediate post-test and delayed post-test period. This study will be useful for students, teachers, administrators and policy makers in the field of education.

Kumar Mukesh, (2012), Academic achievement of adolescents in relation to their emotional intelligence styles of learning and thinking, there are many important issues and challenges facing education at schools and higher education levels healthy and safe learning environments are necessary for students and teachers to perform at their highest levels. Learning and applying emotional intelligence skills contribute to academic and career success. Extensive reviews of studies at schools and organizational levels indicate that emotional intelligence skills are essential to academic achievement. Leading educators have identified and emphasized the importance of emotional intelligence on academic achievement. Student's development programmed utilizes an education and research-based model of emotional intelligence competences and skills are needed to demonstrate this institutional commitment to accountability.

Srinivasa Murthy, A (2012), Personality of adolescents in relation to their adjustment and decision making, The study has been under taken to gain new insights into personality, adjustment and decision making of adolescents with regard to certain selected variables like gender, locality, medium of instruction, type of school, nature of home environment, order of birth, economic background and academic achievement. It is found that individuals differ in personality dimensions in levels of adjustment and in decision making. However, the difference is not significant enough with regard to most of the variables selected for the study, except in case of type of school, order of birth

and economic background with regard to adjustment and decision making. Further, the second major finding of the study is that adolescents showed significant association between personality and adjustment, personality and 17 decision making, adjustment and decision making but all the three do not have significant association with academic achievement. It indicates that the present academic environment is not conducive enough to promote an integrated and holistic personality in adolescents. Various commissions on education reforms strongly recommended an integrated curriculum that would promote all-round development in adolescents. Even though many steps have been taken towards that end, from the study it is seen that much vacuum is left and so, more proactive measures are needed to develop a holistic personality in adolescents through education. This study once again emphasizes the need for better evaluation of curriculum, educational practices, and school systems, formal and non-formal educational practices, student and parent counselling practices, preservice and in-service teacher training programmes to achieve the desired goals through education. Type of school management exerts maximum influence on the personality dimensions of adolescents followed by nature of home environment and medium of instruction whereas order of birth, locality of living and gender have least effect. The better score of boys compared to girls in respect of leadership dimension of personality is to be understood in the light of the superior position given to boys at home, better opportunities in academic aspects and better treatment given to boys at home, in school and in the society. Similarly, high score of rural adolescents compared to their urban counter parts are to be understood in light of the less tense and more peaceful rural environment. The close-knit rural family background too could be a causative factor. The better score of Telugu medium students is to be understood in the light of well-

trained experienced teachers available to those students compared to their counterparts. Similarly the better score of private schools adolescents compared to their counterparts may be because of the enriched opportunities available to them. Finally, the better score of adolescents from enriched home environment 18 compared to neutral home environment could be due to the positive parental attitude of such homes. Order of birth did not influence significantly the personality of adolescents. Economic background did not influence significantly the personality of adolescents. It can be inferred that Adolescents have grown up significantly to meet the challenges of adjustment problems. This development could be due to the influence of spread of literacy, mass media and similar other factors. The instant access to day to day events might have helped the adolescents to acquire the needed skills and strategies to meet the day to day adjustment problems. Gender, locality, medium of instruction, nature of home environment, order of birth and economic background did not have a significant influence on the decision making of adolescents. This could be because of small family norms adopted. However, type of school makes a significant difference in the decision making of adolescents. In schools under government management, less importance is given to spoon feeding methods where as in schools under private management students get few opportunities to think independently and arrive at suitable decisions on their own. Personality factors of adolescents influence their adjustment behavior. It could be because the adjustment modes adopted by individuals in their day to day life situations have their foundation in the personality makeup Personality factors of adolescents influence their decision-making process It is because the decision-making styles adopted by individuals have the foundation in the personality makeup of the individual. A significant association between the adjustment and decision making of

adolescents and vice versa is also seen. Many adjustment behaviors in day to day life go a long way with the decision-making process. Hence the significant association between adjustment and decision making is relevant and meaningful. 19 There is no significant association between the personality and academic achievement of adolescent and vice versa this could be because of the present educational system which is highly independent of personality factors as it stresses more on rote memory and reproduction skills at examination situations rather than all-round development of personality. There exists no significant association between the adjustment and academic achievement of adolescents and vice versa. This could be because of the present educational system which gives little scope for development of adjustment skills. No significant association between the decision making and academic achievement of adolescents and vice versa is seen. It may be because of the present education system which is highly structured towards academic excellence alone and better grades at the final academic results. Hence the decision-making skills and academic achievements naturally function independent of each other. It can be understood that the gap in the personality factors that are seen before 80s are gradually disappearing and at present adolescents are uniform in their personality factors irrespective of order of birth and economic background. The present status of uniformity in adolescent behavior patterns that is noted in the present study must be because of the enhanced educational opportunities and the influence of mass media particularly the electronic media that has revolutionized the access for information during the past two decades.

Lakhe, Anjali, (2003), A comparative study on adjustment levels of adolescents of working and non-working mothers, based on this work, it is concluded

that the overall adjustmenjal levels of adolescents of the working mothers is higher. Another important conclusion is that the family climate of the adolescents of the working mothers is favourable. It is to be noted from the study that all the factors studied are regarding positive adjustments of the adolescents of the working mothers. In the case of the working mothers, changes are inevitable to herself and also to her family's interacting pattern. This study strongly reveals that the changes are in positive direction. Researcher strongly concludes that the overall adjustment capacities of adolescents of the working mothers is higher than their counterpart in the study, and that the family climate of the adolescents of the working mothers is favourable which helps them in their adjustments.

Shivappa, D, (1980), Factors affecting the academic achievement of high school Pupils, Conclusions are that the Study habits, Personality adjustment, Educational aspiration, Manifest anxiety, Socio-economic status, n-Achievement and Intelligence of X standard pupils are associated with their success in the X standard Public Examination. Prediction of academic achievement at the X standard Public Examination, based on Study habits, Personality adjustment, Educational aspiration, Manifest anxiety, the following conclusion could also be drawn if casual n-Achievement and Intelligence is possible relationships are assumed 35. Tenth standard Education Programmes and Activities may he so designed and organised in such a way that they facilitate the development of good study habits* the improvement of personality adjustment* the awareness of educational aspiration, development of n-Achievement, and lessening of manifest anxiety of pupils.

Wajiha, Amtul Haseeb, (2002), Factors affecting academic achievement of IX

standard students in Mathematics, The present study was undertaken to find out the predictive efficiency of mathematical creativity, test anxiety, attitude towards mathematics and achievement motivation for achievement in mathematics of IX standard students studying in Bangalore The analysis of data revealed certain trends from which conclusions can be drawn. Mathematical creativity contributes significantly to achievement in mathematics of IX standard students. It is found that Kannada medium students are lower in mathematical creativity than English medium students. Promotion of creative talents through educational programmes among Kannada medium students should be one of the main aims of schools. Schools should realise that classrooms are not meant only for transmission of knowledge but also for developing creative abilities and talents. When compared to 'aided' and 'unaided' high school student's government school students have lower mathematical creativity. Atmosphere in government schools should be improved by providing men and material resources, so that creative abilities of the students are sharpened. The teachers should have favourable attitude towards creative students Generally teachers expect students should be obedient timid fearful, and submissive. They do not appreciate courageous, curious, independent thinking and judgement, risk taking and initiative which facilitate creativity. Highly individualized and discovery teaching methods should be employed to foster creativity. Better amenities, more enriched teachers and comprehensive curricular and co-curricular programmes should be provided. Attempt should be made to enrich educational setting of schools by providing all these facilities to promote creativity in students. Teachers in Government and Kannada medium schools should strive hard to stimulate creative abilities of the students. There shall not be more stress on achieving high marks in mathematics. Tendency prevails in our 223 present day

society which gives more weightage to academic achievement rather than natural ability of an individual. The pressure exerted by parents and teachers demand unrealistic high level of performance of their children This situation makes the children more test-anxious. This has ill effect on achievement in mathematics. To reduce mathematics test anxiety, the teacher should teach the subject for deep understanding. She should also make the testing situations non-burdensome to the students. For high anxious students - personal counselling can be provided in schools. Also, parents should be told not to cause stress on students towards achievement. Guidance and counselling at the right time would minimize anxiety of students on their academic achievement the teachers and parents should not discourage students specially those who suffer from anxiety. Teachers should identify the units which give scope for creativity, by adopting most suitable methods of teaching. The class room environment should be conducive and encouraging, to develop basic skills, better work habits, divergent thinking, development of desirable attitude, adequate personal judgment, etc From 224 among the teaching methods the best methods suitable for developing mathematical creativity among students such as problem solving and heuristic method should be widely practised in classroom teaching. 4) In the case of attitude towards mathematics it was found that boys and girls do not differ significantly, whereas in case of medium of instruction, English medium students and Kannada medium students differ significantly. Also, government and unaided high school students differ significantly. Then, t may be remembered here that favourable attitude towards mathematics has an impact on achievement in mathematics

Kharshiing, Balarihun Magdalyne, (2013), A study of academic achievement in relation to academic anxiety of secondary school students of mawphlang block,

Available studies on academic achievement indicate that academic achievement is determined by a host factors and the influence of the home is very prominent. The present study focused on the students of Mawphlang Block in particular. Although some of the family in this area are economically backward but still many parents in this particular area are conscious of their children's education so in this regard they send their children to study outside the village to some others and better schools that located in different corner of Shillong so as to get better education and have higher academic achievement. The present study also examines the influence of anxiety on the academic achievement of secondary school students in Mawphlang Block. Study of academic achievement has become a very interest topic for most of the educationist as well as the psychologist. After independence greater emphasis was laid on education. Consequently, the number of students both at school and college levels increased. But the quality of students and standard of teaching have been showing a downward trend. Each year, a good number of students in every educational system fail at different level of examination and this poses a serious problem before the educational planner of our country. Study conducted in this direction have shown that anxiety have non-significant relationship with academic achievement of the students of secondary school. High scholastic achievement not only requires intelligence and abilities rather it also needs favorable contributory personality factors. Numerous research studies, which have been conducted by several investigators, on the subject of anxiety in relation to academic achievement, have 95 reached to the conclusion that these two variables are not significant factor in the academic performance of the students and that negative relationship are always the outcome in such performances.

2.7 STUDIES RELATED TO LEVEL OF HAPPINESS

Buragohain Pranjal (2015), A Study of the Happiness Level of the Secondary School Teachers of Dibrugarh District in Relation to the Job Satisfaction and Morale of the Teachers. The study showed that territory of the schools, type of management of the schools, and nature of appointment of the teachers have significant role on the level of happiness of the Secondary school teachers. Gender did not play any significant role in the level of happiness of the Secondary school teachers. Thus by ensuring, hustle free territory of a school, public management and regularization of posts happiness of a teacher can be increased. As happiness is a potent 214 detriment of success, therefore, the factors related with happiness are worth considerable. In making policy for educational institutions the issue of the happiness of the teachers and employees needs to be considered. Regarding the level of job satisfaction of the Secondary school teachers the study showed that type of management of the schools and nature of appointment of the teachers have significant role on the level of job satisfaction. Thus, to increase the satisfaction of the employees in the job the issue of management and nature of appointment needs to be considered. Regarding the level of the moral of the teachers it is evident that type of management and nature of appointment are significant factor. Morale of the Government teachers and regular teachers are higher than their counterparts. Thus this aspect may be considered in educational policy making to ensure the moral of the teachers. The study further showed that happiness is positively correlated with job satisfaction and morale of the teachers. A happy teacher possesses high job satisfaction and Morale to work and again a teacher having high job satisfaction and morale is happier. As higher level of happiness, job satisfaction and morale are significantly related with many positive variables of an organization

therefore organizational 215 management can surely think of increasing the level of happiness among the employees. Increasing happiness will further significantly contribute to the job satisfaction and morale of the teachers. Thus, happiness is a worth considerable element in educational policy making. The issue of teaching happiness needs to be an important element in teacher educational programmes. Some steps are necessary in part of the government to ensure the happiness of the teachers. The issue of happiness needs to be an important concern of school management also. Thus, by ensuring happiness of the teacher's achievement, accomplishment, morale and vigour of an institution can be enhanced significantly.

Smitha, P S, (2015), A study of certain psycho social and academic correlates of happiness among teacher educands at secondary level. Out of the 900 teacher educands at secondary level, 21.4 % of teacher educands possess very low level of personal Happiness. (22.2%) teacher educands possess low level of personal Happiness. 19.0% of teacher educands at teacher educands possess Average level of personal Happiness. 19.7% of teacher educands possess high level of personal Happiness and Comparatively very small number of teacher educands (17.7%) possesses very high level of personal Happiness. The number of teacher educands possessing low level of personal happiness, it is comparatively higher than all other groups.

Dkhar Bamonlang M., (2018), School environment and level of educational aspiration in relation to academic achievement of secondary school students in Jaintia Hills Meghalaya. In conclusion this study, "School Environment and Level of Educational Aspiration in relation to Academic Achievement of Secondary School

Students in Jaintia Hills, Meghalaya‟‟ has thrown some light on the type of school environment experienced by the students which is neither positive nor negative, this reflect on the academic performance of the students as well, in which most of the students are average achievers. Further, it can also be seen that Level of Educational Aspiration has an influence on the Academic Achievement of the Secondary School students in Jaintia Hills. This indicated that School Environment and Level of Educational Aspiration play a decisive role in enhancing the academic achievement of the students in Jaintia Hills. Therefore, students should be encouraged to participate in activities which they enjoy to be a part of. Classroom environment should be lively by engaging the students in teaching-learning process as this will help to facilitate the self-confidence and self-esteem of learners. Therefore, a child for excellent academic performance requires in addition to other factors a good school environment. Children 170 vary in their ability and attitude to learn; parents and teachers should therefore recognize this and attend to their children as an individual. They should also try to establish and maintain a good home and school environment where love, hardworking and excellence are encouraged in order to bring out the children's best academic performance. The present study highlights the importance of schools in exploring several opportunities for active engagement by the students, in the process of learning by providing a favourable environment where students are free to consult when in need. They should provide adequate educational facilities that can arouse interest in the students and to motivate them to work hard. The school environment should be free from partiality and should create a positive environment where students can share their ideas and develop their personality positively and aim fully to achieve well academically. This would help the students to be more positive, optimistic about one's

own capacities and performance. This study has also established the need to understand the atmosphere of various Secondary Schools in Jaintia Hills under different types of management which needs to necessitate their service as per the need of the child and to give attention that would help the students to have realistic educational aspirations. Teachers in Jaintia Hills should take care how they deal with the students, proper guidance and counselling should be given to the students where their immediate needs would meet. They should also try to identify student"s interest so that they will be able to imbibe in them the importance to have a well-defined academic goal. Teachers in school are the chief architect of the children's life; they provide affection, guidance and encouragement granting children the security and social skills i.e. they needed 171 encouragement to enter into the world of competition. However, teachers need to understand their crucial role in shaping the future of their students, and they should come forward to extend all possible support to children to enable them get success not only in academic domain but also in all spheres of their life. Therefore, the findings of the study have enabled us to understand widely about the secondary school student's perception of school environment, their educational aspiration level and academic achievement, anticipating that the outcome of this research may be used to assist a future school planning programme and guidance and counselling for the secondary schools students of Jaintia Hills.

Marathe, Vaishali, (2021), Constituent Dimensions of Happiness An Exploratory Study. The findings of the study provide interesting insights into the constituent dimensions of happiness in the Indian context. The independent variables Gender, Marital Status and Age were selected in anticipation of their likely effect on the dependent variable of Happiness and its dimensions. The study was based on the

primary data collected from various cities in Madhya Pradesh and Maharashtra, and has important implications in the area of Happiness. The report comprises of seven chapters covering introduction, review of literature, research methodology, results, discussion, summary, conclusions, suggestions and implications of the study, as well as references and appendices. The rationale of the study outlines the reasons for studying Happiness in light of gender, marital status and age, in the Indian context. Objectives provide a direction to facilitate the systematic examination of the context the research design and methodology of the study. A tri-variate factorial design of 2x2x3 was used for this study. The study had a multi stage multivariate-multigroup randomized design to ensure the measurement of the impact of the independent variables gender, marital status and age on the dependent variable of Happiness and its dimensions. The layout of the design classified the participants in terms of Gender (two levels male and female), Marital Status (two levels Married and Unmarried)

Khandayatray, Lopamudra, (2005), Psycho social factors of human happiness. In the context of the role of orientation, happy people are more satisfied with all the general aspects such as education, social relation, self, recreation, work, finance and family. The happy individuals also indicate greater satisfaction level with respect to all the specific aspects. Satisfaction with the experience of positive affects is higher in happy people compared with less happy people, whereas, the experience of negative affects is more pronounced in case of less happy individuals than in happy individuals. Satisfaction with the overall resources is greater in happy person. They are also more satisfied with their goal accomplishment. Happy individuals indicate greater level of emotional intelligence. They show higher level of generalized as well as work-specific self-efficacy.

Panwar Neeraj, (2016), Perceived positive attributes at workplace in relation to personal effectiveness and happiness. itwas found that : 1. Social abilities (SA) dimension of personal effectiveness has the highest significant positive correlational values with the challenges (Chall.; dimension of psychological climate), mystical experience (ME; dimension of spirit at work), generating humour (GH; dimension of sense of humour), civic virtue (CV; dimension of organizational citizenship behaviour) - 193 - and internal locus of control (I-LoC) – a positive dimension of locus of control. Further, the highest significantly positive correlational values has been reported for happiness with the self-expression (SE.; dimension of psychological climate), engaging work (EW; dimension of spirit at work), attitude towards humour and humours person (AtH; dimension of sense of humour), courtesy (Cou.; dimension of organizational citizenship behaviour) and internal locus of control (I-LoC) – a positive dimension of locus of control. Hence the hypothesis stating that there would be significant correlation among perceived positive attributes – psychological climate, spirit at work, sense of humour, organizational citizenship behaviour and locus of control, personal effectiveness and happiness has been supported.

Malik, Meenakshi, (2015), Daily life physical activity, self-efficacy and happiness: a path analysis. It was found on the basis of correlational analysis that there is positive correlation among all the 4 variables, i.e. Daily life physical activity (independent variable), self-efficacy, healthiness and happiness (dependent variable). The total 7 paths were derived. The path focused upon the global group (i.e. all sample comprised together). They dealt with Gym goers, dealt with teachers, dealt with research scholars, dealt with doctors, dealt with M.N.C. workers and dealt with home makers. Results revealed that in totality, daily life physical activity leads to happiness

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only through self-efficacy and healthiness as moderators. The surprised finding was that in general, the belief is that engaging oneself in vigorous 126 physical activity brings happiness. But in both the groups i.e. working and nonworking females, it was found that home markers, remaining at home only performing their chores without much stress and strain in any kind of physical vigorous activity have higher positive evaluation of themselves i.e. higher self-efficacy and good healthiness and ultimately leading to happiness than working , women who are working actively in their work set-ups and going gym as well.

Sharma, Dhruvata, (2016), Hope humour happiness and positive affectivity as correlates of emotional creativity. The study was conducted to examine a potential missing link between Hope, Humour (affiliative, self-enhancing, aggressive & self-defeating), Authentic Happiness (AH) and Emotional creativity (EC). In this context, Positive affect (PA) was explored as a mediator in the relationship between aforementioned variables. A sample of 300 undergraduate students from different streams namely- Fine arts, Fashion & Jewellery designing, Advertising and Conventional courses (B.A, B.Sc., B.Com.) was selected for the purpose. The results revealed that there was a significant positive correlation between Hope and PA ($r = 0.44, p< 0.01$); Hope and EC ($r = 0.12, p< 0.05$); Self-enhancing humour and PA ($r = 0.17, p< 0.01$); Self enhancing humour and EC ($r = 0.11, p< 0.05$); Affiliative humour and PA ($r = 0.18, p< 0.01$); AH and PA ($r = 0.39, p< 0.01$); AH and EC ($r = 0.02, p< 0.01$); PA and EC ($r = 0.19, p< 0.01$). Regression analyses and Sobel- z test was used to test the research hypotheses. Mediation analyses revealed that Positive affect fully mediated the pathways between Hope and Emotional creativity; and Self enhancing humour and Emotional creativity. Moreover, the relationship between Authentic

happiness and Emotional creativity was found to be partially mediated by Positive Affect. Based on the results of the study, a working model of the variables was also suggested using structural equation modelling (SEM).

2.8 CONCLUSION:

One of the very important steps of conducting research is review of related literature. This review helps the researcher in every step of the research. It even helps to formulate and decide the research problem. It gives a preview that how many researches have already been conducted in the said topic. Also, it helps in deciding the tools to conduct the research, develop your own theory and roots of the research, it assists to integrate and consolidate the knowledge and the findings of the research. It gives suggestions for further researches too. Basically it acts as the foundation stone for the research. If the foundation is strong, then, the building will be durable and stable.

The researcher has done review of various researches, surveys and articles related to COVID-19, anxiety, academic achievement and level of happiness among students. Many researches and surveys have been conducted on the same topics but with different variables as well as different sections of the societies of different countries. In recent times, human have suffered a lot due to the pandemic. It has affected all the people irrespective of their age, race, gender, social status or financial status. All the schools, colleges, offices and shops got closed affecting not only the financial aspect bust also the psychological as well as emotional aspect. One of the sufferers are the students who were made to sit at home and were given the electronic gadgets. This made them addicted to mobiles and laptops. Thus, the researcher wanted to observe the impact of Covid-19 on the students. Taking all the aspects was not

possible therefore the researcher took only three variable to study, academic achievement, level of anxiety and level of happiness.

CHAPTER – 3

METHODOLOGY OF RESEARCH

CHAPTER – 3

METHODOLOGY OF RESEARCH

3.1 Research Design

The main purpose of the present study was to find out the impact of C-19 on Academic Achievement, anxiety level and level of happiness of the secondary school students. Also, further studying the impact of c-10 on the above mentioned three factors with respect to their gender and board of the school. To carry out this study, ex-post facto design was chosen. Ex-post facto research is carried out by observing past events in research situations where control of independent variables is not possible. The usual ex-post facto study uses groups that exhibit differences in the dependent variable. However, in some studies the groups are differentiated first on the basis of the independent variable. The design of the present study was based on this type of ex-post facto. In the ex-post facto research conditions, it may be possible to draw subjects at random, but their random grouping is not possible. The subjects assign themselves to groups on the basis of characteristics other than those in which the investigator may be interested.

Though the independent variable in the present study is "COVID-19", some other independent variables such as gender of the student and Board of the school are known to affect the dependent variables in question. To eliminate the effect of these

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extraneous variables was essential in order to study the effect of COVID-19. Methodology of investigation in social sciences is generally divided into four parts: - These are: -

1. Selection of samples.

2. Selection/construction of tools.

3. Scheme of data collection.

4. Plan of analysis of data.

These have been taken one by one.

3.2 Selection of Samples

3.2.1 Population and Sample:

The main purpose of this research was to discover the facts which have universal application. It is not practical if not possible to arrive at generalization by studying the whole population; thus, the sample is selected and then the research findings are generalized. Miller (1977) has pointed out that the essential requirement of a sample is that it should be as representative of the population or universe as possible. For the sample Lucknow city was selected.

The subjects taken were the students studying in class 9th of schools located in Lucknow city. Keeping this thing in mind, it was thought to select them where the heterogeneity created by different subjects of different faculties could be avoided.

The units of the study were students studying in class 9th of schools located in

Lucknow city. The primary unit of the sample was decided to be the schools in Lucknow city. The sampling method was simple random sampling. To select the sample, various schools located in Lucknow city were randomly selected. Like any other city, Lucknow too has various kinds of schools such as boys only, girls only, co-ed, private schools, government, aided, English medium, Hindi medium etc. affiliated to different boards like CBSE, ICSE, UP board, international board etc. Following schools were selected: -

1. Schools located in the urban area of Lucknow city.

2. Only those Hindi and English medium schools which were either run, aided or approved by the government.

3. Students of schools of CBSE and ICSE board were surveyed. state board schools were not considered.

The criterion for the selection of the students was also determined on the following basis: -

1. Students studying in class 9th of the selected schools.

2. The pandemic period (COVID-19) is the period from 24.03.2020 till 30.04.2021.

3.2.2 Sample Size: -

The sample size for the students was 500 out of which, 250 were from CBSE board and 250 from ICSE board. The sample of 500 was further divided on the basis of gender, 125 boys and 125 girls. It can be better understood by the following diagram:

Figure 3.1 Sample Size
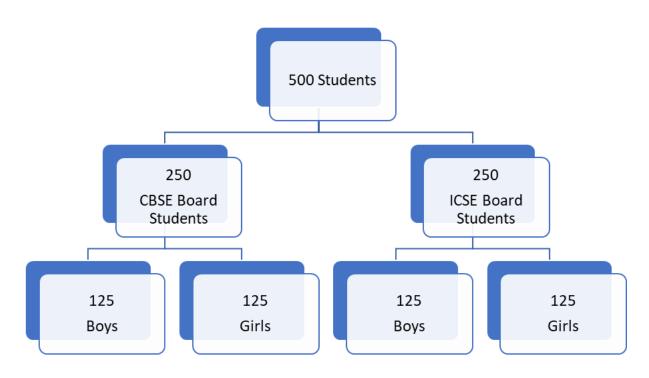
Table: 3.1 List of Sample schools (CBSE Board):

S.NO.	NAME OF THE SCHOOL (CBSE BOARD)	NUMBER OF SAMPLES TAKEN
1.	SETH MR JAIPURIA SCHOOL, KANPUR ROAD CAMPUS	28
2.	CENTRAL ACADEMY, AASHIYANA BRANCH	20
3.	LUCKNOW PUBLIC SCHOOL, AASHIYANA	14
4.	DELHI PUBLIC SCHOOL, ELDECO BRANCH	12
5.	APS ACADEMY, TELIBAGH	14
6.	RANI LAXMI BAI MEMORIAL SCHOOL, INDIRA NAGAR	21

7.	VISHWANATH ACADEMY, LDA COLONY	18
8.	SHIVANI PUBLIC SCHOOL, SHAHEED PATH	19
9.	MARY GARDINER CONVENT SCHOOL, LDA COLONY	26
10.	RED ROSE PUBLIC SENIOR SECONDARY SCHOOL, KANPUR ROAD	26
11.	SURYA PUBLIC SCHOOL, SULTANPUR ROAD	27
12.	ST. FRANCIS MISSION SCHOOL, TELIBAGH	25
	TOTAL	**250**

Table: 3.2 List of Sample schools (ICSE Board):

S.NO.	NAME OF THE SCHOOL (ICSE BOARD)	NUMBER OF SAMPLES TAKEN
1.	SERENITY SCHOOL OF EXCELLENCE, TRIVENI NAGAR	31
2.	RIVERSIDE ACADEMY, GOMTI NAGAR	19
3.	SCHOLARS' HOME, GOMTI NAGAR	17
4.	CITY MONTESSORI SCHOOL, LDA COLONY	07
5.	CITY MONTESSORI SCHOOL, ALIGANJ	13
6.	CITY MONTESSORI SCHOOL, INDIRA NAGAR	04

7.	CITY MONTESSORI SCHOOL, STATION ROAD	09
8.	STELLA MARIS SCHOOL, ASHIANA COLONY,	12
9.	LUCKNOW PUBLIC SCHOOL, JANAKIPURAM VISTAR	18
10.	VIBGYOR HIGH, GOMTI NAGAR	21
11.	MODERN SCHOOL, ALIGANJ	06
12.	ST. ANTONY'S INTER COLLEGE, JANAKIPURAM VISTAR	27
13.	NEW PUBLIC INTER COLLEGE, ALAMBAGH	22
14.	SURABHI ACADEMY, ALIGANJ	18
15.	CAREER CONVENT COLLEGE, VIKAS NAGAR,	04
16.	RAJ KUMAR ACADEMY, RAJAJI PURAM	15
17.	VAIBHAV ACADEMY, INDIRA NAGAR	07
	TOTAL	**250**

The students were selected from the above-mentioned schools as sample for the research. As the students were not going to the school regularly, the students were contacted through personal contacts and schools were not contacted for the same. As the students were minor thus, the permission to conduct the survey was taken from the parents.

3.3 Selection/construction of tools

Tools: - Following tools were used for the present research.

1. **Preliminary information questionnaire prepared by the researcher.** Since this questionnaire was merely for the selection of the sample, therefore no reliability or validity was established. The questionnaire was given to ten experts from the education field and their opinions were taken. The questionnaire consisted of questions related to gender, board, class etc. This was helpful for the researcher to select the sample.

2. **Academic Achievement**: - Achievement is a concept that refers to effectively accomplishing a task via hard work and the application of specific talents. The marks a student receives in an examination represent his or her gained knowledge and skills in a particular subject at the high school and college levels. In this study, Academic achievement means the general knowledge of the five subjects English, Hindi, Math, Science and Social Studies of class IX level. There are a total of 50 questions, 10 questions from each subject. There are 5 options for every question. The subject has to click the most appropriate answer. It is a paper pencil test. This is an individual as well as group test.

Scoring: - The scoring of the questionnaire is very simple. Each question is a 1 mark. There is no negative marking. The maximum possible score is 50 and minimum score is 0.

Reliability: - The validity of the tool was not established due to time constraint. The reliability was found out with the split-half method. The reliability is .83.

3. Anxiety level: - Comprehensive Anxiety Scale (2002) development by A.K.P. Sinha and L.N.K. Sinha for the adolescent's anxiety level. The modified version of Sinha's Comprehensive Anxiety Scale has been used. This version is known as Comprehensive Anxiety Scale developed by A.K.P. Sinha and L.N.K. Sinha for the population of adolescents and young adults, to measure their manifested anxiety level. The scale is designed to elicit the self-rating of items to know anxiety reactions in the areas.

1) Health appearance and crying.

2) Area of ambition (success or failure in education, occupation, work and money).

3) Family anxiety

4) Anxiety regarding friendship and love

5) Social relationships and social approval

6) Worries regarding the future

7) Worries about civilization

8) Guilt and shame.

9) Physical and physiological manifestations

10) Psychological manifestation

SCORING: This test contains 90 items. The respondents are asked to respond to every item in respect of "YES" or "NO". The yes response is a particular item. Is suggestive of anxiety and was scored as one. A score of zero was assigned to a NO response. The sum of the total yes or no responses is the total anxiety score of the individual.

The anxiety is grouped and tested under 5 head viz.

1. Extremely high Anxiety

2. High Anxiety

3. Normal Anxiety

4. Low Anxiety

5. Extremely No Anxiety

The individuals are classified under the above tested 5 heads. A person with a high score of above 75 percentile is viewed as hyper anxious Individual with Extremely High Anxiety. A person is regarded as under motivated and sluggish if he scores extremely low, below 25th percentile. The middle group of scores stands for representing normal individuals.

Reliability: The coefficient of Reliability was calculated by ensuring the two techniques of-

1. The Test-Retest Method (N=100) was used on the product moment correlation between the test and the retest scores was 0.85.

2. The Internal Consistency Reliability was founded by appropriating odd-even procedure (N=100) on the basis of Spearman Brown Formula, the reliability Co-efficient of the test was found to be .92. The test is highly reliable

Validity: The validity was estimated by calculating the coefficient between scores on Comprehensive Anxiety Test and on Taylors's Manifest Anxiety scale. It was .62,

which is significant beyond, .001 level of confidence.

Norms- Percentile norms have been used for interpreting the test scores. The Individuals may be classified on the basis of scores obtained on the inventory according to the five categories classified

Level of happiness: - To check the level of happiness among the students of secondary school during pandemic period, a self-prepared tool for level of happiness was constructed. Seligman has identified five elements that are important for happiness-positive emotions, engagement, relationships, meaning and achievement. The acronym for these elements, PERMA, is the term that they are most often referred to. On the basis of these five elements, a questionnaire was prepared. 5 questions for each dimension were asked. Total number of questions were 25.

Scoring: It was taken on 5-point scale- strongly agree, agree, neutral, disagree, strongly disagree. The score allotted was from 5-1 and 1-5. The maximum score was 125 and minimum was 25.

Reliability: - The validity of the tool was not established due to time constraint. The reliability was found out with the split-half method. The reliability is .83.

3.4 Scheme of data collection

The unit of the study were the students studying in class 9th of schools located within Lucknow city and affiliated to CBSE or ICSE board. The primary unit of sample was decided to be schools of Lucknow city. There are large numbers of schools in Lucknow city. They were randomly selected for the research purpose.

Stage I - In the first stage preliminary information questionnaire was administered on 3298 students of class 9th. The main purpose of administering the questionnaire was to get the information about the class, gender and board of the school. Out of 3298 students 500 students were selected for the study. Out of 500 students, 250 were from CBSE board and 250 were from ICSE board. These 250 each student were further divided into 125 boys and 125 girls. Also,

Stage II – In the second stage, all the tests which were selected for the further investigation were conducted on the selected students. It took one week each for every test. Thus, for the entire month, Academic Achievement test prepared by the researcher, Comprehensive Anxiety Scale (2002) development by A.K.P. Sinha and L.N.K. Sinha for the adolescent's anxiety level, and the Self prepared tool for level of happiness were administered. This was done keeping in view the factor of fatigue on the part of the subjects. Considering the pandemic situation and following the COVID - 19 protocol, the students were given the questionnaire through email. The students were required to revert back the email, the very next day. During administration of Academic Achievement, the time was considered and the test was given through google form. The time was set by the researcher to reduce the chances of cheating.

Stage III- After the collection of the data, scoring was done according to the instructions in the manuals and the data were prepared in the tabular form. Then the data was analysed by applying the appropriate statistical tools. After that the result is graphically represented.

3.5 Plan of Analysis of Data

The statistical techniques to be adopted depend upon the purpose of the investigation. As the main purpose of the present research was to study and find out the effect of COVID-19 on Academic Achievement, anxiety level and the level of happiness among the students of class 9th, the following statistical measures were applied: -

1. **Mean: -** The mean is the arithmetic average of a set of values, or distribution; however, for skewed distributions. The arithmetic mean is the "standard" average, often simply called the "mean".

   In the present study, the formula used was

   $M = \sum X \div N$

   The means were calculated to see the average performance of different groups on particular variables.

2. **Standard Deviation: -** Standard deviation is a widely used measurement of variability or diversity used in statistics. It shows how much variation or "dispersion" there is from the average (mean, or expected value). A measure of the dispersion of a set of data from its mean. The more spread apart the data, the higher the deviation. Standard deviation is calculated as the square root of variance. A low standard deviation indicates that the data points tend to be very close to the mean, whereas high standard deviation indicates that the data are spread out over a large range of values.

That is, the standard deviation σ (sigma) is the square root of the variance of X, i.e., it is the square root of the average value of $(X - \mu)^2$.

The standard deviations were calculated for all the groups of scores.

3. **"t" Ratio (t): -** The t-test assesses whether the means of two groups are *statistically* different from each other. This analysis is appropriate whenever you want to compare the means of two groups. Dependent samples (or "paired") *t-tests* typically consist of a sample of matched pairs of similar units, or one group of units that has been tested twice. To determine whether the difference between means of two groups is significant, "t" ratio was computed. The *t* statistic to test whether the means are different can be calculated as follows:

   Where: -

   Here is the grand standard deviation (or pooled standard deviation), $1 =$ group one, $2 =$ group two. The denominator of *t* is the standard error of the difference between two means. For significance testing, the degree of freedom for this test is $2n - 2$ where *n* is the number of participants in each group.

4. **Standard Error of Mean:-** The difference between the means of two samples, A and B, both randomly drawn from the same normally distributed source population, belongs to a normally distributed sampling distribution whose overall mean is equal to zero and whose standard deviation ("standard error") is equal to   square root $[(sd^2/n_a)+(sd^2/n_b)]$

Where: -

sd^2 = the variance of the source population (i.e., the square of the standard deviation);

n_a = the size of sample A and,

n_b = the size of sample B.

5. **Level of Significance: -** Hypothesis testing the significance level is the criterion used for rejecting the null hypothesis. The significance level is used in hypothesis testing as follows: First, the difference between the results of the experiment and the null hypothesis is determined. Then, assuming the null hypothesis is true; the probability of a difference that large or larger is computed. Finally, this probability is compared to the significance level. If the probability is less than or equal to the significance level, then the null hypothesis is rejected and the outcome is said to be statistically significant. Traditionally, experimenters have used either the 0.05 level (sometimes called the 5% level) or the 0.01 level (1% level), although the choice of levels is largely subjective. The lower the significance level, the more the data must diverge from the null hypothesis to be significant. Therefore, the 0.01 level is more conservative than the 0.05 level.

6. **Graphical Representation: -** To take an overview of any result, the graphical representation is a very good option. In this research the histogram is used to see the performance of the students on various dimensions. Also, the comparison between different groups has also been represented by the bar diagram.

CHAPTER – 4
ANALYSIS AND INTERPRETATION OF DATA

CHAPTER-IV

ANALYSIS AND INTERPRETATION OF DATA

The present chapter includes the analysis and interpretation of data. The researcher has framed certain hypotheses that are tested with the help of data collected during the investigation. Also, the different groups are compared with each other. For this null hypothesis is framed. The scoring of different factors influencing the children of working and non- working mothers has been done according to the norms.

In the preceding section, the effect of Covid-19 will be seen on Academic Achievement of the secondary school students of Lucknow city.

Objective- 1. To study the impact of pandemic (COVID-19) on academic achievement of secondary school students in Lucknow City.

Hypothesis 1. The secondary school students score average in academic achievement during pandemic (COVID-19) period.

TABLE 4.1 PERCENTAGE SCORE OF ACADEMIC ACHIEVEMENT OF THE SECONDARY SCHOOL STUDENTS
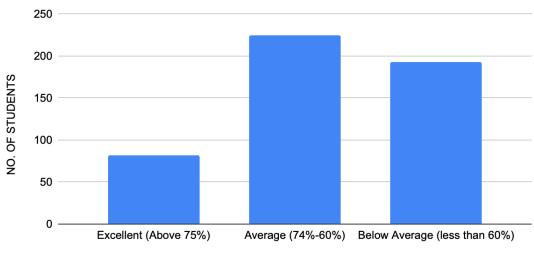
S.NO	CATEGORY	N	Percentage (%)
1.	Excellent (Above 75%)	82	16.4
2.	Average (74%-60%)	225	45
3.	Below Average (less than 60%)	193	38.6

INTERPRETATION:

The above table shows the academic achievement of the secondary school students. Only 16.4% i.e 82 students out of 500 have scored above 75% in academics. 225 secondary school students out of 500 scored between 74%-60% which is 45% of the total students. 38.6% of the total secondary school students scored below 60% i.e 225 students out of total 500 students.

GRAPH 4.1

PERCENTAGE SCORE OF ACADEMIC ACHIEVEMENT OF THE SECONDARY SCHOOL STUDENTS

In the above graph on X - axis there are three categories of academic achievement which is excellent, average and below average. Where as on the Y- axis, the number of students have been taken.It is shown that a total of 82 (16.4%) have scored excellent marks (above 75%) whereas 225 (45%) secondary school students have scored average (74%-60%) and 193 (38.6) secondary school students have scored below 60%.

DISCUSSION:

From the above result it can be concluded that most of the students i.e 45% of the total secondary school students have scored average marks in academic achievement. Only 16.4% of the total students have scored excellent in academics. The reason behind it can be attributed to online classes which seem to be monotonous and boring for the students. Many of them confessed to be lying down on the bed while attending the classes, they even slept during the classes. This type of liberty is not possible during offline classes. They even did not have their daily routine of have bath etc. before attending the classes. Also they used to log in to the online classes and then go for their daily routine. Many were found to get indulged in visiting other websites like social media and other websites. There was no fear of offline examinations or assessment, this also made the students carefree and lethargic. 45% of the total students scored average in their academics where as 38.6% of the total secondary school students scored below average proving that the standards of the studies have actually gone down during lockdown period. Even the parents showed a quite indifferent attitude towards the studies of their children. They could not keep a track on the studies of their ward as there was only online assessment, which can not be the true indicators of the academic knowledge of the students.

Objective 2. To study the impact of pandemic (COVID-19) on anxiety level of secondary school students in Lucknow City.

Hypothesis 2. Secondary school students have high anxiety levels during pandemic (COVID-19) period.

TABLE 4.2 PERCENTAGE OF ANXIETY LEVEL OF THE SECONDARY SCHOOL STUDENTS
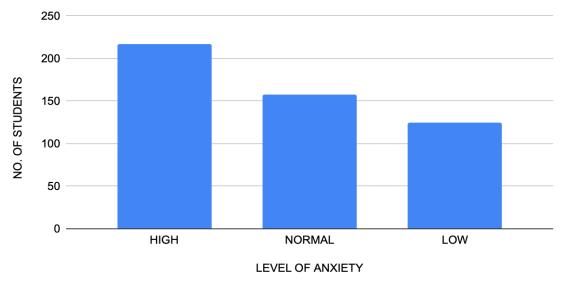
S.NO	CATEGORY	N	Percentage (%)
1.	High	217	43.4
2.	Normal	158	31.6
3.	Low	125	25

INTERPRETATION

Table 1.1 shows that out of a total 500 secondary school students ,217 (43.4%) have high anxiety levels whereas 158 secondary school students (31.6%) have Normal anxiety levels and 125 secondary school students (25%) have low anxiety levels. hypothesis number H2 is accepted., It is concluded that There is a high level of anxiety among secondary school students of Lucknow city.

GRAPH 4.2

LEVEL OF ANXIETY OF THE SECONDARY SCHOOL STUDENTS

In the above graph on the X - axis the category of it is shown that a total of 217 (43.4%) have high anxiety levels whereas 158 secondary school students (31.6%) have Normal anxiety level and 125 secondary school students (25%) have low anxiety level.

DISCUSSION

Thus, from the above result it can be concluded that 43.4% of the secondary school students have high anxiety level. The pandemic has restricted the physical movement of the students which has resulted in the high anxiety level. The students are unable to physically meet their friends and classmates. Also, any type of physical activity is restricted. The students are 24*7 with their parents. They are also unable to vent out their energy. The students are not only living with their parents, they are also bound to contribute in daily household chores as there is no domestic help available with the parents. This made their life dull and boring and thus increased their anxiety level. 37.2% of the secondary school students have normal anxiety levels. If we

observe closely, we will find that the is not much difference between the students with high anxiety level and normal anxiety level as the students have found their way to relax with social media and online entertainment. Moreover they do not have much pressure of academics and studies on them. Only 23.4% of secondary school students had a low level of anxiety level.

Objective 3- To study the impact of pandemic (COVID-19) on the level of happiness of Secondary School students.

Hypothesis 3. The secondary school students have a low level of happiness during pandemic (COVID-19) period.

Table: 4.3 PERCENTAGE OF LEVEL HAPPINESS OF THE SECONDARY SCHOOL STUDENTS
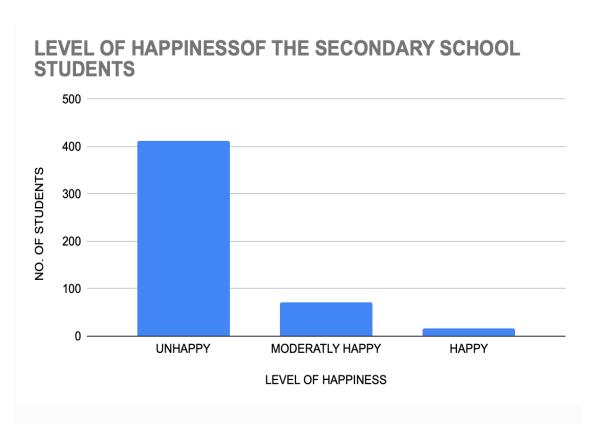
S.NO	CATEGORY	N	Percentage (%)
1.	Unhappy	412	82.4
2.	Moderately Happy	72	14.4
3.	Very Happy	16	3.2

INTERPRETATION

The above table clearly indicated that the 82.4% (412 out of 500) of the secondary school students are unhappy whereas 14.4% (72 out of 500) of the secondary school students are moderately happy and only 3.2 (16 out of 500) of the secondary school students are happy. It is clear from the graph too that most of the secondary

school students are unhappy and only 14.4% are moderately happy whereas only 3.2% of the secondary school students are happy.

GRAPH 4.3

LEVEL OF HAPPINESSOF THE SECONDARY SCHOOL STUDENTS

Bar chart with Y-axis labeled "NO. OF STUDENTS" (0 to 500) and X-axis labeled "LEVEL OF HAPPINESS" with categories UNHAPPY (~410), MODERATLY HAPPY (~70), HAPPY (~15).

The above graph shows the level of happiness among the secondary school students on the X-axis. The level of happiness is divided into 3 parts, unhappy, moderately happy and unhappy. On the Y- - axis, the number of students is taken. As it is clear from the graph, most of the students are unhappy i.e 82.4% and only 3.2% of the secondary school students are happy.

DISCUSSION:

It has been proven statistically too that the secondary school students are unhappy during the lockdown period. The reason behind it was simply the same reason why they have scored less in academics or why they have been found with high

anxiety. They do not have any offline social life and any type of physical movement was restricted. The students were confined to their houses and were unable to meet their friends in person. They were bound to live with their parents which themselves were suffering from insecurities like health issues, finances and other problems. Most of the parents were working from home and thus they too did not have much time left to spend with their children. All the household chores were done by the parents and thus they were engrossed within themselves. The children were left alone and thus their happiness level went down. 14.4% of the students were moderately happy, they enjoyed being active in social media and found many online friends. They got active on these platforms. Most of these people were introverts. Only 3.2% of the secondary school students were found to be happy. These students were hardcore introverts and liked to study online and were happy with the virtual friend with whom they were not bound to speak or talk. Also they were happy as they were exempted from the offline assessments and thus were free of any academic or social performance pressure.

Objective 4- To study the impact of pandemic (COVID-19) on academic achievement of Secondary School students with respect to their

(a) Gender

(b) Board

Hypothesis 4. (a) There is no significant difference between academic achievement of boys and girls of secondary school students during pandemic (COVID-19) period.

The Academic Achievement of the secondary school students were also compared on the basis of gender.

Table 4.4(a) The comparison between Academic Achievement of the students on the basis of gender.

Boys		Girls		T-Score	SDe	Significance at .05 level
Mean	SD	Mean	SD			
62.4	12.45	66.12	9.28	3.7921	0.982	Significant

INTERPRETATION:

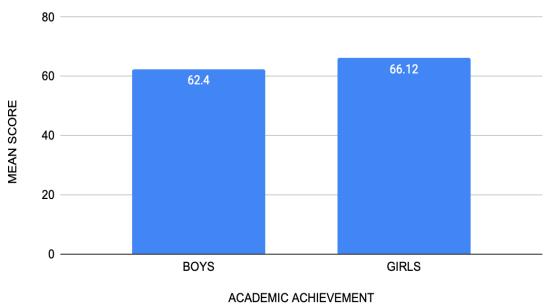On the basis of gender, the academic achievement was compared and it was found that there is a significant difference between the academic achievement of boys and girls. The girls have score an average mark of 66.12 whereas the boys have scored only 62.4 on an average.The SD of boys of the secondary school students is 12.45 as compared to the SD of the girls of the secondary school students which is 9.28. The

SDe is calculated as 0.982. The calculated t- score is 3.7921 which is significantly high at .05 level. Thus the null hypothesis is rejected.

GRAPH 4.4(a)

Comparison between Academic Achievement of boys and girls of secondary schools

The above graph shows the comparison between boys and girls on academic achievement. On the X-axis, academic achievement is taken whereas on Y-axis, the mean score is taken. It is clearly visible from the graph that the academic achievement of the girls is higher than that of boys.

DISCUSSION:

This is not a shocking result as we can refer to the class 10th and 12th boards, generally the girls score higher than the boys and also the pass percentage of girls is much higher as compared to girls. Similarly during Covid period too, the girls scored better than boys. The t-score calculated was 3.7821 which is significant at .05 level.

The girls contributed more in household chores. Also it was observed that the online games were more played by the boys as compared to the girls. This gave them more time to study and thus score well as compared to the boys.

Hypothesis 4(b) There is no significant difference between academic achievement of CBSE and ICSE board students of secondary schools during pandemic (COVID-19) period.

Table 4.4.(b) The comparison between the academic achievement of the students of different boards
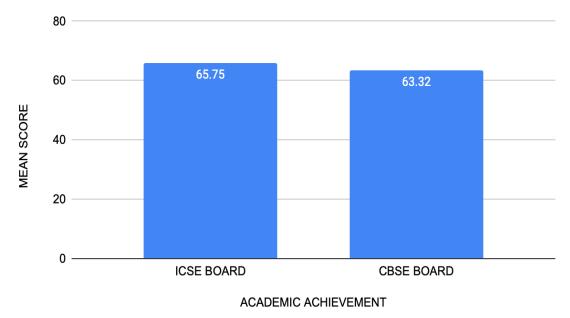
ICSE Board		CBSE Board		T- Score	SDe	Significance at .05 level
Mean	SD	Mean	SD			
65.75	9.34	63.32	12.40	2.4774	0.982	Significant

INTERPRETATION:

The average marks of the secondary school students of ICSE board in academic achievement is 65.75 whereas in CBSE board the average marks is 63.32 the SD is 9.34 and 12.40 respectively. The t score is 2.4774 which is significant at .05 level. Thus, the null hypothesis is rejected. There is a significant difference between the academic performance of the secondary school students of ICSE board and CBSE board. The ICSE secondary school students scored better than the CBSE secondary school students.

GRAPH 4.4(b)

Comparison between Academic Achievement of the students of CBSE and ICSE board

The above graph shows the comparison between the students of CBSE board and ICSE board on academic achievement. On the X-axis, academic achievement is taken whereas on Y-axis, the mean score is taken. It is clearly visible from the graph that the ICSE secondary school students scored better than the CBSE board secondary school students.

DISCUSSION:

This proves that the academic performance of the students of ICSE board is better than as compared to the students of CBSE board. The reason is that most of the schools of ICSE board are quite active and keep giving more assignments and written work. In the CBSE board, the students are more relaxed and were not given too much written work. Also the subjects in CBSE board are only 5 whereas the ICSE board has many subjects. The ICSE board schools have many classes and the online liberty was

quite restricted. They made sure that the videos of all the students were switched on during the classes and also weekly feedback was given to the parents so that they can keep a track of the academic performance of their wards.

Thus, it is proved statistically that the gender as well as the type of board plays a significant role in the academic achievement of the student. The ICSE board is considered to be more scoring as compared to the CBSE board. The questions which were asked in the tool developed by the researcher was based on the current syllabus of that particular class (class 9th). Similarly, girls are considered to be more dedicated for studies and it is proved in this research as the girls scored higher than the boys on an average.

Objective 5 To study the impact of pandemic (COVID-19) on anxiety level of Secondary School students with respect to their

(a) Gender

(b) Board

Hypothesis 5(a) There is no significant difference between the anxiety level of boys and girls of secondary schools during pandemic (COVID-19) period.

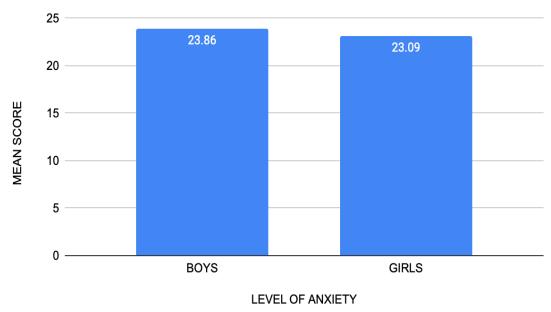**Table 4.5 (a)** The comparison between Anxiety level of the students on the basis of gender.

Boys		Girls		T- Score	SDe	Significance at .05 level
Mean	SD	Mean	SD			
23.86	5.06	23.09	4.79	1.7341	0.441	Insignificant

INTERPRETATION:

The anxiety level of the secondary school students were also compared on the basis of gender. The above table shows the mean score of girls and boys of secondary schools of Lucknow. The mean score of girls is 23.09 whereas for boys it is 23.86. the SD of girls is 4.79 and for boys it is 5.06. the t-score is 1.7341 which is not significant at .05 level. Thus, the null hypothesis is rejected. This result proves that there is no significant difference between the anxiety level of the students of secondary schools of Lucknow city on the basis of gender.

GRAPH 4.5 (a)

Comparison between Level of Anxiety of boys and girls of secondary schools

On the X-axis level of anxiety is taken whereas the Y- axis shows the mean scores. The above graph indicates that there is a very insignificant difference between the level of anxiety between the boys and girls. The mean score of boys is 23.86 as compared to the girls which is 23.09

DISCUSSION:

Thus, we can say that there is no significant role of the gender on the anxiety level among the students of secondary school where as the type of board does affect the level of anxiety. The main difference between the CBSE and ICSE board is that of number of subjects. ICSE has more number of subjects also the difficulty level of ICSE road is comparatively higher than that of CBSE board. The subject matter or the concepts are almost the same for both the boards. This can be one of the reasons of higher anxiety level among the students.

Hypothesis 5(b) There is no significant difference between the anxiety level of CBSE and ICSE board students of secondary schools during pandemic (COVID-19) period.

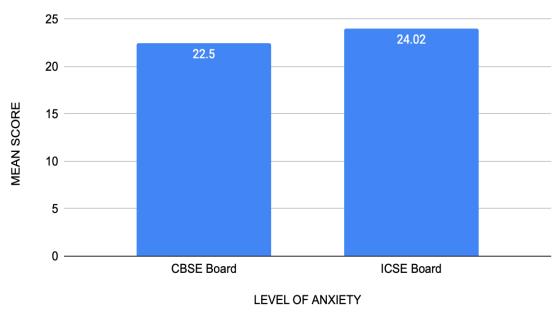**Table 4.5 (b)** The comparison between Anxiety level of the students of different boards

CBSE Board		ICSE Board		T- Score	SDe	Significance at .05 level
Mean	SD	Mean	SD			
22.5	4.94	24.02	4.95	4.0	0.442	Significant

INTERPRETATION:

The above table shows that the mean score of anxiety level of the secondary school students of ICSE board is 24.02 and the SD is 4.95 whereas the mean score of CBSE secondary school students is 22.5 and the SD is 4.94 the t-value is 4.0 which is significant at .05 level as well as at .01 level. Thus the null hypothesis is rejected . This proves that the anxiety level of the students of ICSE board is significantly higher than the students of CBSE board.

GRAPH 4.5(b)

Comparison between Level of Anxiety of the students of CBSE Board and ICSE Board

The above graph shows the comparison between the students of CBSE board and ICSE board on level of anxiety. On the X-axis, level of anxiety is taken whereas on Y-axis, the mean score is taken. It is clearly visible from the graph that the ICSE secondary school students are suffering from high levels of anxiety than CBSE board secondary school students.

DISCUSSION:

The reason was assumed that this board has more papers/ subjects as compared to the CBSE board. In the CBSE board, 78 students out of 250 students had high anxiety level which is 31.2%, 138 students out of 250 students had normal anxiety level which is 55.2% of the total, whereas 34 students out of 250 students had low anxiety level which is 13.6% of the total. In the ICSE board, 121 students out of 250 students had high level of anxiety which is 48.4% 44.8% that is 112 out of 250 students

had normal anxiety level. Only 17 students out of 250 which comprises 6.8% suffer from low anxiety level.

We can not say that the feeling of anxiety is a bad or harmful emotion. Anything out of proportion is bad. A moderate level of anxiety can enhance the performance whereas the low level of anxiety will slow down the performance. Similarly the high level of anxiety will hamper the performance. It will also affect the mental health of a person. Therefore, the level of anxiety should be maintained to avoid any type of psychological problem.

Objective 6- To study the impact of pandemic (COVID-19) on level of happiness of Secondary School students with respect to their

      (a) Gender

      (b) Board

Hypothesis 6(a) There is no significant difference between the level of happiness of boys and girls of secondary schools during the pandemic (COVID-19) period.

Table 4.6 (a) The comparison between level of Happiness of the students on the basis of gender
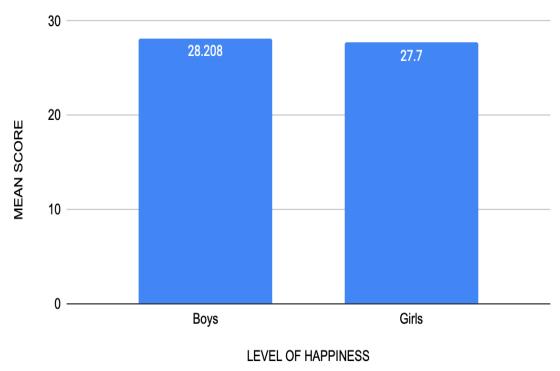
Boys		Girls		T- Score	SDe	Significance at .05 level
Mean	SD	Mean	SD			
28.20800	24.09	27.70	23.60	0.2382	2.133	Insignificant

INTERPRETATION:

The mean score of the boys of the secondary schools is 28.208 whereas the mean score of the girls of secondary school is 27.7. The Standard Deviation of boys of secondary school is 24.09 as compared to girls of secondary school , which is 23.60. The SDe is 2.133. The t-score is 0.2382 which is insignificant at 0.05 level. Thus the null hypothesis is accepted. There is no significant difference between the level of happiness of boys and girls of secondary schools during pandemic (COVID-19) period of Lucknow city.

Graph 4.6(a)

Comparison between the level of happiness of boys and girls of secondary schools

On the X-axis level of happiness is taken whereas the Y- axis shows the mean scores. The above graph indicates that there is a no insignificant difference between the

level of anxiety between the boys and girls. The mean score of boys is 28.208 as compared to the girls which is 27.7

DISCUSSION:

As it is clear from the table, there is no significant difference between the level of happiness among boys and girls. Thus we can say that the level of happiness is not affected by gender in the case of students of secondary school. Happiness is a phenomenon which is not affected by gender. The students of secondary school of Lucknow city were equally unhappy with the lock down irrespective of their gender.

Hypothesis 6 (b) There is no significant difference between the level of happiness of CBSE and ICSE board students of secondary schools during pandemic (COVID-19) period.

Table 4.6 (b) The comparison between level of Happiness of the students of different boards

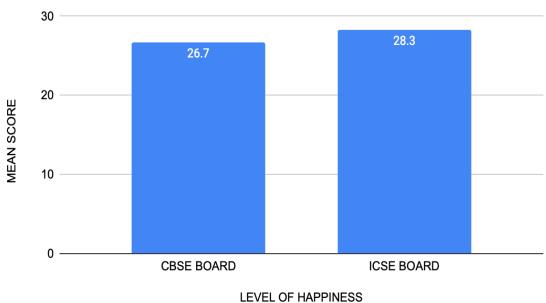| CBSE Board		ICSE Board		T- Score	SDe	Significance at .05 level
Mean	SD	Mean	SD			
26.7	24.08	28.30	22.40	0.7692	2.080	Insignificant

INTERPRETATION:

The above table shows that the mean score of the students of secondary schools CBSE board which is 26.7 the standard deviation of the same is 24.08 whereas the

mean score of the students of secondary schools ICSE board is 28.30 and its standard deviation is 22.40. The SDe is 2.080. The t-score calculated is 0.7692 which is insignificant at .05 level. Thus, the null hypothesis is accepted. There is no significant difference between level of happiness of CBSE and ICSE board students of secondary schools during the pandemic (COVID-19) period of Lucknow city.

Graph 4.6(b)

Comparison between the level of happiness of CBSE and ICSE Students of secondary schools

The above graph shows the comparison between the students of CBSE board and ICSE board on level of happiness. On the X-axis, level of happiness is taken whereas on Y-axis, the mean score is taken. It is clearly visible from the graph that there is no significant difference between the levels of happiness on the basis of boards.

DISCUSSION:

The results clearly indicate that the type of board in which the student is studying does

not affect the level of happiness of the students of secondary schools. Whether the students of CBSE board or ICSE board, both of them are equally unhappy during the lockdown. Thus the null hypothesis is accepted.

CHAPTER – 5

FINDINGS, CONCLUSION, SUGGESTIONS AND EDUCATIONAL IMPLICATIONS

CHAPTER-V

FINDINGS, CONCLUSION, SUGGESTIONS AND EDUCATIONAL IMPLICATIONS

5.1 FINDINGS:

1. The impact of pandemic (COVID-19) on academic achievement of secondary school students in Lucknow City:

   a) 16.4% i.e 82 students out of 500 have scored above 75% in academics.

   b) 225 secondary school students out of 500 scored between 74%-60% which is 45% of the total students.

   c) 38.6% of the total secondary school students scored below 60% i.e 225 students out of total 500 students.

2. The impact of pandemic (COVID-19) on anxiety level of secondary school students in Lucknow City.

   a) Out of a total 500 secondary school students, 217 (43.4%) have high anxiety levels.

   b) 158 secondary school students (31.6%) have Normal anxiety levels.

   c) 125 secondary school students (25%) have low anxiety levels.

d) There is a high level of anxiety among secondary school students of Lucknow city.

3. The impact of pandemic (COVID-19) on the level of happiness of Secondary School students.

   a) 82.4% (412 out of 500) of the secondary school students are unhappy

   b) 14.4% (72 out of 500) of the secondary school students are moderately happy

   c) Only 3.2 (16 out of 500) of the secondary school students are happy.

4. The impact of pandemic (COVID-19) on academic achievement of Secondary School students with respect to their

   a) Gender

   b) Board

   a. There is a significant difference between the academic achievement of boys and girls.

   b. Girls have scored better in academics than boys.

   c. The girls have scored an average mark of 66.12

   d. The boys have scored only 62.4 on an average.

   e. There is a significant difference between the academic performance of the secondary school students of ICSE board and CBSE board.

f. The ICSE secondary school students scored better than the CBSE secondary school students.

5. The impact of pandemic (COVID-19) on anxiety level of Secondary School students with respect to their.

   a) Gender

   b) Board

   a) There is no significant difference between the anxiety level of the students of secondary schools of Lucknow city on the basis of gender.

   b) The anxiety level of the students of ICSE board is significantly higher than the students of CBSE board.

6. The impact of pandemic (COVID-19) on level of happiness of Secondary School students with respect to their.

   a. Gender

   b. Board

   a. There is no significant difference between the level of happiness of boys and girls of secondary schools during pandemic (COVID-19) period of Lucknow city.

   b. There is no significant difference between the level of happiness of CBSE and ICSE board students of secondary schools during the pandemic (COVID-19) period of Lucknow city.

5.2 CONCLUSION:

From the study conducted with the help of a sample it was concluded that the impact of Covid-19 on academic achievement was significant as most of the students have scored average or below average. most of the students i.e 45% of the total secondary school students have scored average marks in academic achievement. Only 16.4% of the total students have scored excellent in academics. The reason behind it can be attributed to online classes which seem to be monotonous and boring for the students. Many of them confessed to lying down on the bed while attending the classes, they even slept during the classes. This type of liberty is not possible during offline classes. They even did not have their daily routine of have bath etc. before attending the classes. Also they used to log in to the online classes and then go for their daily routine. Many were found to get indulged in visiting other websites like social media and other websites. There was no fear of offline examinations or assessment, this also made the students carefree and lethargic. 45% of the total students scored average in their academics where as 38.6% of the total secondary school students scored below average proving that the standards of the studies have actually gone down during lockdown period. Even the parents showed a quite indifferent attitude towards the studies of their children. They could not keep a track on the studies of their ward as there was only online assessment, which can not be the true indicators of the academic knowledge of the students.

43.4% of secondary school students have high anxiety levels. The pandemic has restricted the physical movement of the students which has resulted in the high anxiety level. The students are unable to physically meet their friends and classmates. Also,

any type of physical activity is restricted. The students are 24*7 with their parents. They are also unable to vent out their energy. The students are not only living with their parents, they are also bound to contribute in daily household chores as there is no domestic help available with the parents. This made their life dull and boring and thus increased their anxiety level. 37.2% of the secondary school students have normal anxiety levels. If we observe closely, we will find that the is not much difference between the students with high anxiety level and normal anxiety level as the students have found their way to relax with social media and online entertainment. Moreover they do not have much pressure of academics and studies on them. Only 23.4% of secondary school students had a low level of anxiety.

It has been proven statistically too that the secondary school students are unhappy during the lockdown period. The reason behind it was simply the same reason why they have scored less in academics or why they have been found with high anxiety. They do not have any offline social life and any type of physical movement was restricted. The students were confined to their houses and were unable to meet their friends in person. They were bound to live with their parents which themselves were suffering from insecurities like health issues, finances and other problems. Most of the parents were working from home and thus they too did not have much time left to spend with their children. All the household chores were done by the parents and thus they were engrossed within themselves. The children were left alone and thus their happiness level went down. 14.4% of the students were moderately happy , they enjoyed being active in social media and found many online friends. They got active on these platforms. Most of these people were introverts. Only 3.2% of the secondary school students were found to be happy. These students were hardcore introverts and

liked to study online and were happy with the virtual friend with whom they were not bound to speak or talk. Also they were happy as they were exempted from the offline assessments and thus were free of any academic or social performance pressure.

It has been observed that the girls score higher than the boys and also the pass percentage of girls is much higher as compared to girls. Similarly during Covid period too, the girls scored better than boys. The t-score calculated was 3.7821 which is significant at .05 level. The girls contributed more in household chores. Also it was observed that the online games were more played by the boys as compared to the girls. This gave them more time to study and thus score well as compared to the boys.

This proves that the academic performance of the students of ICSE board is better than as compared to the students of CBSE board. The reason is that most of the schools of ICSE board are quite active and keep giving more assignments and written work. In the CBSE board, the students are more relaxed and were not given too much written work. Also the subjects in CBSE board are only 5 whereas the ICSE board has many subjects. The ICSE board schools have many classes and the online liberty was quite restricted. They made sure that the videos of all the students were switched on during the classes and also weekly feedback was given to the parents so that they can keep a track of the academic performance of their wards. Thus, it is proved statistically that the gender as well as the type of board plays a significant role in the academic achievement of the student. The ICSE board is considered to be more scoring as compared to the CBSE board. The questions which were asked in the tool developed by the researcher were based on the current syllabus of that particular class (class 9th). Similarly, girls are considered to be more dedicated for studies and it is proved in this

research as the girls scored higher than the boys on an average.

There is no significant role of the gender on the anxiety level among the students of secondary school whereas the type of board does affect the level of anxiety. The main difference between the CBSE and ICSE board is the number of subjects. ICSE has more subjects and the difficulty level of ICSE road is comparatively higher than that of CBSE board. The subject matter or the concepts are almost the same for both the boards. This can be one of the reasons for higher anxiety levels among the students.

The reason was assumed that this board has more papers/ subjects as compared to the CBSE board. In the CBSE board, 78 students out of 250 students had high anxiety level which is 31.2%, 138 students out of 250 students had normal anxiety level which is 55.2% of the total, whereas 34 students out of 250 students had low anxiety level which is 13.6% of the total. In the ICSE board, 121 students out of 250 students had high levels of anxiety which is 48.4% 44.8% that is 112 out of 250 students had normal anxiety levels. Only 17 students out of 250 which comprises 6.8% suffer from low anxiety levels.

We can not say that the feeling of anxiety is a bad or harmful emotion. Anything out of proportion is bad. A moderate level of anxiety can enhance the performance whereas the low level of anxiety will slow down the performance. Similarly the high level of anxiety will hamper the performance. It will also affect the mental health of a person. Therefore, the level of anxiety should be maintained to avoid any type of psychological problem.

There is no significant difference between the level of happiness among boys

and girls. Thus we can say that the level of happiness is not affected by gender in the case of students of secondary school. Happiness is a phenomenon which is not affected by gender. The students of secondary school of Lucknow city were equally unhappy with the lock down irrespective of their gender. The results clearly indicate that the type of board in which the student is studying does not affect the level of happiness of the students of secondary schools. Whether the students of CBSE board or ICSE board, both of them are equally unhappy during the lockdown. Thus, the null hypothesis is accepted.

5.3 SUGGESTIONS:

After the completion of research work and reaching the conclusion it becomes essential to give some suggestions to the concerned stakeholders of the society such as Policy makers, Management of Schools, Principals, Teachers, parents and future researchers.

5.3.1 For the policy makers:

The pandemic is a rare situation but still we can not deny the fact that it has occurred in the past and can also recur in future. Thus, taking the lesson from the most recent pandemic, the policy makers should work accordingly.

While the students are suffering from the post effects of the pandemic, the policy makers should consider that the two years have been dull and restricted years of the student's life. They have not only suffered academically but also emotionally as well as socially. It will take time for them to recover from the effects of it. Thus, they should not put pressure on the academic performance of the students. It will take some

time for the students to recover and come back to normal life. The burden of academic performance should be reduced.

5.3.2 For Management of Schools

The schools have, especially the private schools, have tried to perform quite good during the pandemic by providing regular classes for the students through distance mode. The teachers have been very regular in taking classes but now as the pandemic is almost over, the routine life should come back. The school should stop the facility of online classes as it is very essential for the students to come to the school and attend the classes through offline mode.

A personal counselor should be appointed to look after the students and check their mental health on a regular basis.

5.3.3 For the Principals

During the pandemic, very limited or no sports and co-curricular activities were conducted. Now the principal should focus on more sports and co-curricular activities. These activities should be organised by the schools on a regular basis and the students should be encouraged to actively participate in the same. Also different social activities should be encouraged.

Different clubs had houses should be formed. Group activities should be given to the students so that the social interaction among the students increases.

Parent - teacher meetings should be conducted more frequently as it is very essential to have proper coordination between the parents and the teachers for the

betterment of the students.

5.3.4 For the Teachers

The teachers have to play a very vital role in the betterment of the students as well as in making the cope up with the crucial period of pandemic. They are in direct touch with the students, also directly and indirectly influence the students. They are like role models for their students. During the lockdown period, they have lost the personal touch with the students but now as the school opens up , they should again build up the confidence with the students so that they can keep an eye on the mental as well as academic well being of the students.

5.4 EDUCATIONAL IMPLICATIONS

1) The present study shows that the lockdown done due to covid-19 has affected the academics of the students.

2) Lockdown has caused a high level of anxiety among secondary school students.

3) Most of the students are unhappy due to lockdown as the level of happiness was quite low among secondary school students.

4) The academic performance of girls is better than that of boys during lockdown as most of the boys spend their time either on social media or online games.

5) Online education or teaching is not very successful in educating adolescents.

6) Co-curricular activities are equally important as academics and these activities leads to the higher level of happiness and lower the level of anxiety.
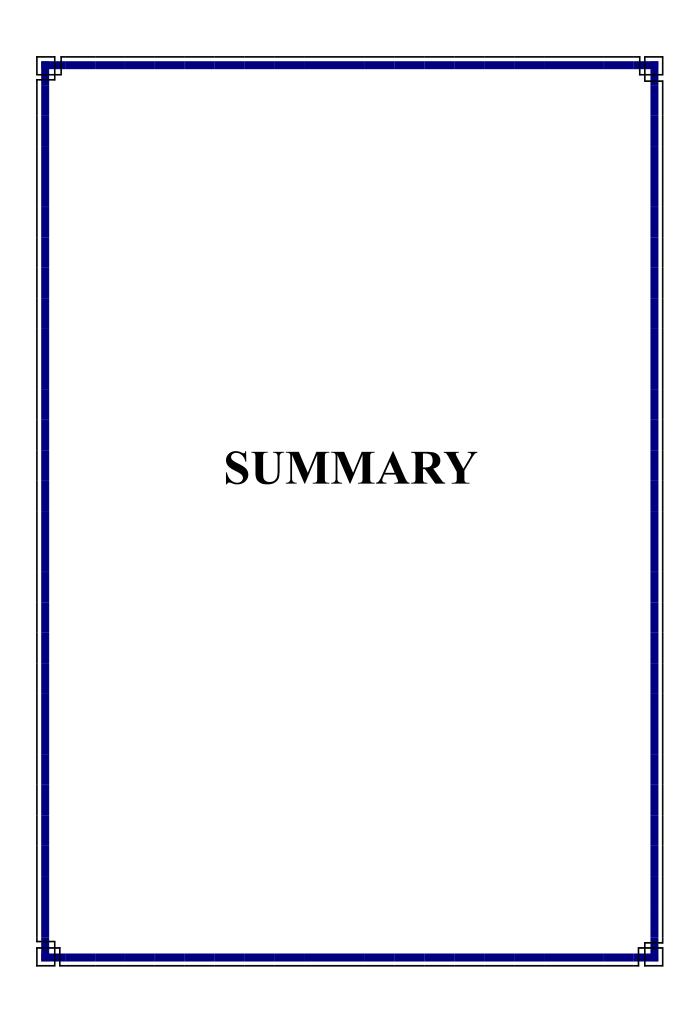
7) Social interaction and physical activities are essential to main the level of anxiety and happiness among the students.

5.5 SUGGESTIONS FOR THE FURTHER RESEARCH:

1) Researches on the effects of convid-19 on various other social, economic and psychological aspects may be conducted.

2) This study is confided to only three variables, academic achievement, level of anxiety and happiness level, other variable related with adolescents could also be taken.

3) the effects of covid-19 can be compared on the basis of socio-economic status, emotional intelligence etc.

4) More sophisticated statistical techniques may be used for more detailed analysis of the data.

5) The population of the current study is only the students of class IX, further the primary level, pre-primary of higher secondary students can also be studied.

6) The research can be done involving different cities, villages, districts etc with a large sample.

7) A comparative study of students of rural and urban schools can also be taken into consideration for the research.

8) A detailed study of the demographic aspect of students and its impact on academic achievement can also be done.

9) It is a quantitative study, a more detailed qualitative study can be conducted with the help of open ended questionnaires or interviews.

10) The effect of pandemic on the higher education students can also be studied.

11) This research does not study the effect of Covid-19 on the parents or teachers. The research related with them can also be conducted.

SUMMARY

SUMMARY

INTRODUCTION:

Pandemic, covid-19 has led to some major changes in the lives of almost all the people of the world. We can not say that the effect has been positive in any way. People have not only lost their loved ones but also their financial stability. All these circumstances have led to financial as well as social unrest.

It disturbed and frightened not only other countries but also India. In a more specific way, students and educational institutions are suffering more than other things. It seems like COVID-19 is weakening the education system and also full educational life experience. Some students are suffering more who are financially disturbed by this pandemic. COVID-19 has destroyed the economy of the countries and also the financial conditions of the families. People are suffering seriously and some are unable to continue their ward's education. People's lives, especially students' lives are completely disturbed or reshaped. It looks like COVID-19 has been approximately fully controlled or captured the world. Several kinds of research have shown different global crises of the COVID-19 like on the economy, society, environment, physical and mental health, etc. But it affects more education lives of the students in other countries and also in India. Although the government and other authorities are providing supportive insights to the students on their perception and satisfaction in this panic situation. Teachers and public relations of the educational institutions help seriously for

proper growth of the education life of the students even during this pandemic. But when educational institutions moved towards "distance education", the students failed to show good performance due to lack of computer skills and much workload. In lockdown times, the students are usually thinking and raising questions about issues in their study and future professional career which turned them into anxious, frustrated, and disturbed mental health.

NEED OF THE STUDY

The pandemic has affected the students in a positive as well as negative way. Adolescent age is a very sensitive age and this pandemic has immensely affected their social, emotional, academic and psychological aspect. It is very essential to know the impact of online mode of imparting education. This can be done only through administering academic achievement tests. Academic achievement tests will also be an evidence of the effect of the pandemic on the quality of education.

Anxiety is one of the psychological factors which is very dominant during adolescence. Due to lockdown, the students have been restricted to homes surrounded by the parents and siblings and almost to touch with the friend circle. It has also restricted physical activities like sports. This might have affected the anxiety level of the students. The disturbed routine life also hampers the level of anxiety.

Lockdown has also affected the level of happiness among the adolescents. Since the level of happiness is positively related to the academic achievement of the students, it's very essential to be happy. It is important to know the level of happiness among the secondary school students.

There is a need to study how COVID-19 pandemic has affected the lives of secondary school students, especially their academic achievement, anxiety level and level of happiness. The current study deals with the same.

STATEMENT OF THE PROBLEM

"A study of the Impact of Covid – 19 on Academic Achievement, Level of Anxiety and Happiness Level of Secondary School Students."

OPERATIONAL DEFINITIONS:

- **ACADEMIC ACHIEVEMENT:** The general knowledge of the five subjects English, Hindi, Maths, Science and Social Studies of class IX level.

- **ANXIETY:** Anxiety in this research is measured using the comprehensive anxiety scale developed by A.K.P Sinha and L.N.K Sinha for the population of adolescents to measure their manifested anxiety level.

- **SECONDARY SCHOOL STUDENTS:** Secondary school Students is defined as students who are studying in class 9 th of Lucknow city only of CBSE and ICSE board. State board students are not surveyed.

- **PANDEMIC PERIOD COVID-19:** The pandemic period (COVID-19) is the period from 24.03.2020 till 30.04.2021.

OBJECTIVES OF THE STUDY

1) To study the impact of pandemic (COVID-19) on academic achievement of secondary school students in Lucknow City.

2) To study the impact of pandemic (COVID-19) on the anxiety level of secondary school students in Lucknow City.

3) To study the impact of pandemic (COVID-19) on the level of happiness of Secondary School students.

4) To study the impact of pandemic (COVID-19) on academic achievement of Secondary School students with respect to their

    a) Gender

    b) Board

5) To study the impact of pandemic (COVID-19) on anxiety level of Secondary School students with respect to their

    a) Gender

    b) Board

6) To study the impact of pandemic (COVID-19) on level of happiness of Secondary School students with respect to their

    (a) Gender

    (b) Board

HYPOTHESIS

1) The secondary school students score average in academic achievement during pandemic (COVID-19) period.

2) Secondary school students have high anxiety levels during the pandemic (COVID-

19) period.

3) Secondary school students have a low level of happiness during the pandemic (COVID-19) period.

4(a) There is no significant difference between the academic achievement of boys and girls of secondary school students during the pandemic (COVID-19) period.

4(b) There is no significant difference between academic achievement of CBSE and ICSE board students of secondary schools during pandemic (COVID-19) period.

5(a) There is no significant difference between the anxiety levels of boys and girls in secondary schools during the pandemic (COVID-19) period.

5(b) There is no significant difference between the anxiety level of CBSE and ICSE board students of secondary schools during the pandemic (COVID-19) period.

6(a) There is no significant difference between the level of happiness of boys and girls of secondary schools during the pandemic (COVID-19) period.

6(b) There is no significant difference between the level of happiness of CBSE and ICSE board students of secondary schools during the pandemic (COVID-19) period.

DELIMITATION

1. The study has been delimited to senior secondary school students of class 9th of Lucknow city.

2. Reliability and validity of the tools have been taken as prepared by the makers of the test.

3. Students of schools of CBSE and ICSE board are surveyed state board schools are not considered.

4. The pandemic period (COVID-19) is the period from 24.03.2020 till 30.04.2021.

Population and Sample

The subjects taken were the students studying in class 9th of schools located in Lucknow city. Keeping this thing in mind, it was thought to select them where the heterogeneity created by different subjects of different faculties could be avoided. The units of the study were students studying in class 9th of schools located in Lucknow city. The primary unit of the sample was decided to be the schools in Lucknow city. The sampling method was simple random sampling. To select the sample, various schools located in Lucknow city were randomly selected. Like any other city, Lucknow too has various kinds of schools such as boys only, girls only, co-ed, private schools, government, aided, English medium, Hindi medium etc. affiliated to different boards like CBSE, ICSE, UP board, international board etc.

Following schools were selected: -

1. Schools located in the urban area of Lucknow city.

2. Only those Hindi and English medium schools which were either run aided or approved by the government.

3. Students of schools of CBSE and ICSE board were surveyed state board schools were not considered.

The criterion for the selection of the students was also determined on the following

basis: -

1. Students studying in class 9th of the selected schools.

2. The pandemic period (COVID-19) is the period from 24.03.2020 till 30.04.2021.

Sample Size: - The sample size for the students was 500 out of which, 250 were from CBSE board and 250 from ICSE board. The sample of 500 was further divided on the basis of gender, 125 boys and 125 girls.

Selection/construction of tools

Tools: - Following tools were used for the present research.

1. **Preliminary information questionnaire** prepared by the researcher. Since this questionnaire was merely for the selection of the sample, therefore no reliability or validity was established. The questionnaire was given to ten experts from the education field and their opinions were taken. The questionnaire consisted of questions related to gender, board, class etc. This was helpful for the researcher to select the sample.

2. **Academic Achievement**: - Achievement is a concept that refers to effectively accomplishing a task via hard work and the application of specific talents. The marks a student receives in an examination represent his or her gained knowledge and skills in a particular subject at the high school and college levels. In this study, Academic achievement means the general knowledge of the five subjects English, Hindi, Math, Science and Social Studies of class IX level. There are a total of 50 questions, 10 questions from each subject. There are 5 options for every question. The subject has to

click the most appropriate answer. It is a paper pencil test. This is an individual as well as group test.

Scoring: - The scoring of the questionnaire is very simple. Each question is a 1 mark. There is no negative marking. The maximum possible score is 50 and minimum score is 0.

Reliability: - The validity of the tool was not established due to time constraint. The reliability was found out with the split-half method. The reliability is .83.

3. **Anxiety level:** - Comprehensive Anxiety Scale (2002) development by A.K.P. Sinha and L.N.K. Sinha for the adolescent's anxiety level. The modified version of Sinha's Comprehensive Anxiety Scale has been used. This version is known as Comprehensive Anxiety Scale developed by A.K.P. Sinha and L.N.K. Sinha for the population of adolescents and young adults, to measure their manifested anxiety level. The scale is designed to elicit the self-rating of items to know anxiety reactions in the areas.

SCORING: This test contains 90 items. The respondents are asked to respond to every item in respect of "YES" or "NO". The yes response is a particular item. Is suggestive of anxiety and was scored as one. A score of zero was assigned to a NO response. The sum of the total yes or no responses is the total anxiety score of the individual.

The anxiety is grouped and tested under 5 head viz.

1. Extremely high Anxiety

2. High Anxiety

3. Normal Anxiety

4. Low Anxiety

5. Extremely No Anxiety

The individuals are classified under the above tested 5 heads. A person with a high score of above 75 percentile is viewed as a hyper anxious Individual with Extremely High Anxiety. A person is regarded as under motivated and sluggish if he scores extremely low, below 25th percentile. The middle group of scores stands for representing normal individuals.

Reliability: The coefficient of Reliability was calculated by ensuring the two techniques of-

1.   The Test-Retest Method (N=100) was used on the product moment correlation between the test and the retest scores was 0.85.

2.   The Internal Consistency Reliability was founded by appropriating an odd-even procedure (N=100) on the basis of Spearman Brown Formula, the reliability Coefficient of the test was found to be .92. The test is highly reliable

Validity: The validity was estimated by calculating the coefficient between scores on Comprehensive Anxiety Test and on Taylor's Manifest Anxiety scale. It was .62, which is significant beyond, .001 level of confidence.

Norms- Percentile norms have been used for interpreting the test scores. The Individuals may be classified on the basis of scores obtained on the inventory according to the five categories classified.

4.   **Level of happiness:** - To check the level of happiness among the students of

secondary school during the pandemic period, a self-prepared tool for level of happiness was constructed. Seligman has identified five elements that are important for happiness- positive emotions, engagement, relationships, meaning and achievement. The acronym for these elements, PERMA, is the term that they are most often referred to. On the basis of these five elements, a questionnaire was prepared. 5 questions for each dimension were asked. Total number of questions was 25.

Scoring: It was taken on a 5-point scale- strongly agree, agree, neutral, disagree, strongly disagree. The score allotted was from 5-1 and 1-5. The maximum score was 125 and minimum was 25.

Reliability: - The validity of the tool was not established due to time constraint. The reliability was found out with the split-half method. The reliability is .83.

Scheme of data collection

The unit of the study were the students studying in class 9th of schools located within Lucknow city and affiliated to CBSE or ICSE board. The primary unit of sample was decided to be schools of Lucknow city. There are large numbers of schools in Lucknow city. They were randomly selected for the research purpose.

Stage I - In the first stage preliminary information questionnaire was administered on 3298 students of class 9th. The main purpose of administering the questionnaire was to get the information about the class, gender and board of the school. Out of 3298 students 500 students were selected for the study. Out of 500 students, 250 were from CBSE board and 250 were from ICSE board. These 250 each student were further divided into 125 boys and 125 girls.

Stage II – In the second stage, all the tests which were selected for the further investigation were conducted on the selected students. It took one week each for every test. Thus, for the entire month, Academic Achievement test prepared by the researcher, Comprehensive Anxiety Scale (2002) development by A.K.P. Sinha and L.N.K. Sinha for the adolescent's anxiety level, and the Self prepared tool for level of happiness were administered. This was done keeping in view the factor of fatigue on the part of the subjects. Considering the pandemic situation and following the COVID - 19 protocol, the students were given the questionnaire through email. The students were required to revert back the email, the very next day. During administration of Academic Achievement, the time was considered and the test was given through Google form. The time was set by the researcher to reduce the chances of cheating.

Stage III- After the collection of the data, scoring was done according to the instructions in the manuals and the data were prepared in the tabular form. Then the data was analysed by applying the appropriate statistical tools. After that the result is graphically represented.

Plan of analysis of data

The statistical techniques to be adopted depend upon the purpose of the investigation. As the main purpose of the present research was to study and find out the effect of COVID-19 on Academic Achievement, anxiety level and the level of happiness among the students of class 9th, the following statistical measures were applied: -

1. **Mean:-** The means were calculated to see the average performance of different groups on particular variables.

2. **Standard Deviation: -**The standard deviations were calculated for all the groups of scores.

3. **Ratio (t): -** The t-test assesses whether the means of two groups are statistically different from each other. This analysis is appropriate whenever you want to compare the means of two groups.

4. **Standard Error of Mean:-** The difference between the means of two samples.

5. **Level of Significance: -** Hypothesis testing the significance level is the criterion used for rejecting the null hypothesis. The significance level is used in hypothesis testing as follows: First, the difference between the results of the experiment and the null hypothesis is determined. Then, assuming the null hypothesis is true; the probability of a difference that large or larger is computed. Finally, this probability is compared to the significance level. If the probability is less than or equal to the significance level, then the null hypothesis is rejected and the outcome is said to be statistically significant. Traditionally, experimenters have used either the 0.05 level (sometimes called the 5% level) or the 0.01 level (1% level), although the choice of levels is largely subjective. The lower the significance level, the more the data must diverge from the null hypothesis to be significant. Therefore, the 0.01 level is more conservative than the 0.05 level.

6. **Graphical Representation: -** To take an overview of any result, the graphical representation is a very good option. In this research the histogram is used to see the performance of the students on various dimensions. Also, the comparison between different groups has also been represented by the bar diagram.

FINDINGS

1. The impact of pandemic (COVID-19) on academic achievement of secondary school students in Lucknow City:

   a) 16.4% i.e 82 students out of 500 have scored above 75% in academics.

   b) 225 secondary school students out of 500 scored between 74%-60% which is 45% of the total students.

   c) 38.6% of the total secondary school students scored below 60% i.e 225 students out of total 500 students.

2. The impact of pandemic (COVID-19) on anxiety level of secondary school students in Lucknow City.

   a) Out of a total 500 secondary school students ,217 (43.4%) have high anxiety levels

   b) 158 secondary school students (31.6%) have Normal anxiety levels

   c) 125 secondary school students (25%) have low anxiety levels.

   d) There is a high level of anxiety among secondary school students of Lucknow city.

3. The impact of pandemic (COVID-19) on the level of happiness of Secondary School students.

      a) 82.4% (412 out of 500) of the secondary school students are unhappy

b) 14.4% (72 out of 500) of the secondary school students are moderately happy

c) Only 3.2 (16 out of 500) of the secondary school students are happy.

4. The impact of pandemic (COVID-19) on academic achievement of Secondary School students with respect to their

   (a) Gender

   (b) Board

   a) There is a significant difference between the academic achievement of boys and girls.

   b) Girls have scored better in academics than boys.

   c) The girls have scored an average mark of 66.12

   d) The boys have scored only 62.4 on an average.

   e) There is a significant difference between the academic performance of the secondary school students of ICSE board and CBSE board.

   f) The ICSE secondary school students scored better than the CBSE secondary school students.

5. The impact of pandemic (COVID-19) on anxiety level of Secondary School students with respect to their

   a) Gender

b) Board

a)   There is no significant difference between the anxiety level of the students of secondary schools of Lucknow city on the basis of gender.

b)   The anxiety level of the students of ICSE board is significantly higher than the students of CBSE board.

7. The impact of pandemic (COVID-19) on level of happiness of Secondary School students with respect to their

(a) Gender

(b) Board

c. There is no significant difference between the level of happiness of boys and girls of secondary schools during pandemic (COVID-19) period of Lucknow city.

d. There is no significant difference between the level of happiness of CBSE and ICSE board students of secondary schools during the pandemic (COVID-19) period of Lucknow city.

CONCLUSION

From the study conducted with the help of a sample it was concluded that the impact of Covid-19 on academic achievement was significant as most of the students have scored average or below average. most of the students i.e 45% of the total secondary school students have scored average marks in academic achievement. Only 16.4% of the total students have scored excellent in academics. The reason behind it can be attributed to

online classes which seem to be monotonous and boring for the students. Many of them confessed to lying down on the bed while attending the classes, they even slept during the classes. This type of liberty is not possible during offline classes. They even did not have their daily routine of have bath etc. before attending the classes. Also they used to log in to the online classes and then go for their daily routine. Many were found to get indulged in visiting other websites like social media and other websites. There was no fear of offline examinations or assessment, this also made the students carefree and lethargic. 45% of the total students scored average in their academics where as 38.6% of the total secondary school students scored below average proving that the standards of the studies have actually gone down during lockdown period. Even the parents showed a quite indifferent attitude towards the studies of their children. They could not keep a track on the studies of their ward as there was only online assessment, which can not be the true indicators of the academic knowledge of the students.

43.4%of secondary school students have high anxiety levels. The pandemic has restricted the physical movement of the students which has resulted in the high anxiety level. The students are unable to physically meet their friends and classmates. Also, any type of physical activity is restricted. The students are 24*7 with their parents. They are also unable to vent out their energy. The students are not only living with their parents, they are also bound to contribute in daily household chores as there is no domestic help available with the parents. This made their life dull and boring and thus increased their anxiety level. 37.2% of the secondary school students have normal anxiety levels. If we observe closely, we will find that the is not much difference between the students with high anxiety level and normal anxiety level as the students have found their way to relax with social media and online entertainment. Moreover

they do not have much pressure of academics and studies on them. Only 23.4% of secondary school students had a low level of anxiety.

It has been proven statistically too that the secondary school students are unhappy during the lockdown period. The reason behind it was simply the same reason why they have scored less in academics or why they have been found with high anxiety. They do not have any offline social life and any type of physical movement was restricted. The students were confined to their houses and were unable to meet their friends in person. They were bound to live with their parents which themselves were suffering from insecurities like health issues, finances and other problems. Most of the parents were working from home and thus they too did not have much time left to spend with their children. All the household chores were done by the parents and thus they were engrossed within themselves. The children were left alone and thus their happiness level went down. 14.4% of the students were moderately happy , they enjoyed being active in social media and found many online friends. They got active on these platforms. Most of these people were introverts. Only 3.2% of the secondary school students were found to be happy. These students were hardcore introverts and liked to study online and were happy with the virtual friend with whom they were not bound to speak or talk. Also they were happy as they were exempted from the offline assessments and thus were free of any academic or social performance pressure.

It has been observed that the girls score higher than the boys and also the pass percentage of girls is much higher as compared to girls. Similarly during Covid period too, the girls scored better than boys. The t-score calculated was 3.7821 which is significant at .05 level. The girls contributed more in household chores. Also it was

observed that the online games were more played by the boys as compared to the girls. This gave them more time to study and thus score well as compared to the boys.

This proves that the academic performance of the students of ICSE board is better than as compared to the students of CBSE board. The reason is that most of the schools of ICSE board are quite active and keep giving more assignments and written work. In the CBSE board, the students are more relaxed and were not given too much written work. Also the subjects in CBSE board are only 5 whereas the ICSE board has many subjects. The ICSE board schools have many classes and the online liberty was quite restricted. They made sure that the videos of all the students were switched on during the classes and also weekly feedback was given to the parents so that they can keep a track of the academic performance of their wards. Thus, it is proved statistically that the gender as well as the type of board plays a significant role in the academic achievement of the student. The ICSE board is considered to be more scoring as compared to the CBSE board. The questions which were asked in the tool developed by the researcher were based on the current syllabus of that particular class (class 9th). Similarly, girls are considered to be more dedicated for studies and it is proved in this research as the girls scored higher than the boys on an average.

There is no significant role of the gender on the anxiety level among the students of secondary school whereas the type of board does affect the level of anxiety. The main difference between the CBSE and ICSE board is the number of subjects. ICSE has more subjects and the difficulty level of ICSE road is comparatively higher than that of CBSE board. The subject matter or the concepts are almost the same for both the boards. This can be one of the reasons for higher anxiety levels among the

students.

The reason was assumed that this board has more papers/ subjects as compared to the CBSE board. In the CBSE board, 78 students out of 250 students had high anxiety level which is 31.2%, 138 students out of 250 students had normal anxiety level which is 55.2% of the total, whereas 34 students out of 250 students had low anxiety level which is 13.6% of the total. In the ICSE board, 121 students out of 250 students had high levels of anxiety which is 48.4% 44.8% that is 112 out of 250 students had normal anxiety levels. Only 17 students out of 250 which comprises 6.8% suffer from low anxiety levels.

We can not say that the feeling of anxiety is a bad or harmful emotion. Anything out of proportion is bad. A moderate level of anxiety can enhance the performance whereas the low level of anxiety will slow down the performance. Similarly the high level of anxiety will hamper the performance. It will also affect the mental health of a person. Therefore, the level of anxiety should be maintained to avoid any type of psychological problem.

There is no significant difference between the level of happiness among boys and girls. Thus we can say that the level of happiness is not affected by gender in the case of students of secondary school. Happiness is a phenomenon which is not affected by gender. The students of secondary school of Lucknow city were equally unhappy with the lock down irrespective of their gender. The results clearly indicate that the type of board in which the student is studying does not affect the level of happiness of the students of secondary schools. Whether the students of CBSE board or ICSE board, both of them are equally unhappy during the lockdown. Thus the null hypothesis is

accepted.

SUGGESTIONS:

After the completion of research work and reaching the conclusion it becomes essential to give some suggestions to the concerned stakeholders of the society such as Policy makers, Management of Schools, Principals, Teachers, parents and future researchers.

For the policy makers:

The pandemic is a rare situation but still we can not deny the fact that it has occurred in the past and can also recur in future. Thus, taking the lesson from the most recent pandemic, the policy makers should work accordingly.

While the students are suffering from the post effects of the pandemic, the policy makers should consider that the two years have been dull and restricted years of the student's life. They have not only suffered academically but also emotionally as well as socially. It will take time for them to recover from the effects of it. Thus, they should not put pressure on the academic performance of the students. It will take some time for the students to recover and come back to normal life. The burden of academic performance should be reduced.

For Management of schools

The schools have, especially the private schools, have tried to perform quite good during the pandemic by providing regular classes for the students through distance mode. The teachers have been very regular in taking classes but now as the

pandemic are almost over, the routined life should come back. The school should stop the facility of online classes as it is very essential for the students to come to the school and attend the classes through offline mode.

A personal counselor should be appointed to look after the students and check their mental health on a regular basis.

For the Principals:

During the pandemic, very limited or no sports and co-curricular activities were conducted. Now the principal should focus on more sports and co-curricular activities. These activities should be organised by the schools on a regular basis and the students should be encouraged to actively participate in the same. Also different social activities should be encouraged.

Different clubs had houses should be formed. Group activities should be given to the students so that the social interaction among the students increases.

Parent - teacher meetings should be conducted more frequently as it is very essential to have proper coordination between the parents and the teachers for the betterment of the students.

For the Teachers

The teachers have to play a very vital role in the betterment of the students as well as in making the cope up with the crucial period of pandemic. They are in direct touch with the students, also directly and indirectly influence the students. They are like role models for their students. During the lockdown period, they have lost the

personal touch with the students but now as the school opens up , they should again build up the confidence with the students so that they can keep an eye on the mental as well as academic well being of the students.

EDUCATIONAL IMPLICATIONS

1) The present study shows that the lockdown done due to covid-19 has affected the academics of the students.

2) Lockdown has caused a high level of anxiety among secondary school students.

3) Most of the students are unhappy due to lockdown as the level of happiness was quite low among secondary school students.

4) The academic performance of girls is better than that of boys during lockdown as most of the boys spend their time either on social media or online games.

5) Online education or teaching is not very successful in educating adolescents.

6) Co-curricular activities are equally important as academics and these activities leads to the higher level of happiness and lower the level of anxiety.

7) Social interaction and physical activities are essential to main the level of anxiety and happiness among the students.
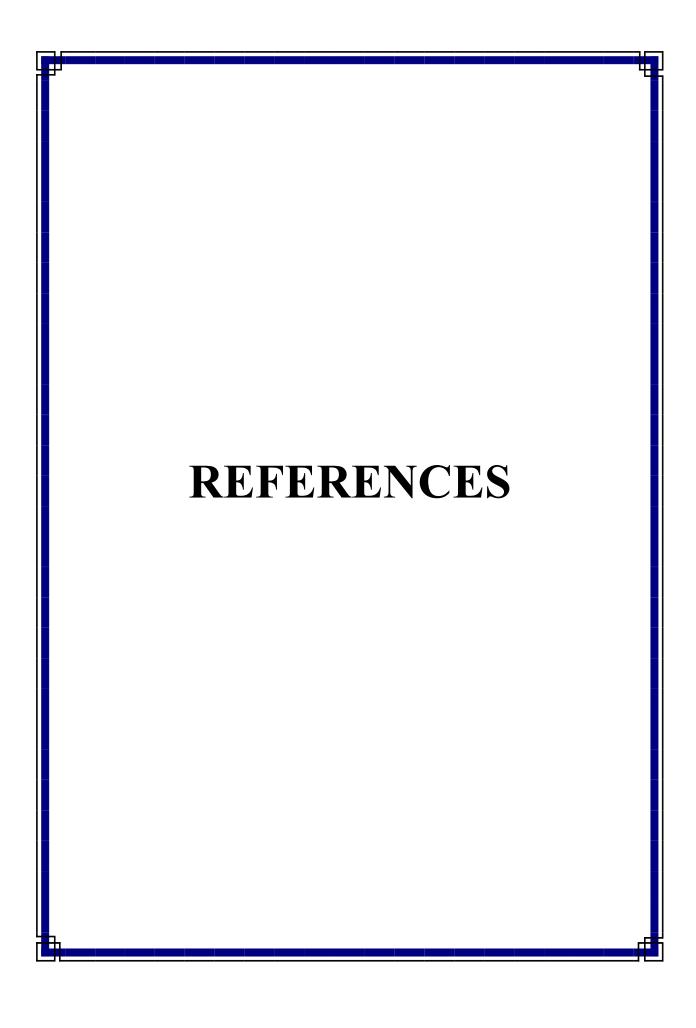
SUGGESTIONS FOR THE FURTHER RESEARCH

1) Researches on the effects of convid-19 on various other social, economic and psychological aspects may be conducted.

2) This study is confide to only three variables, academic achievement, level of

anxiety and happiness level, other variable related with adolescents could also be taken.

3) The effects of covid-19 can be compared on the basis of socio-economice status, emotional intelligence etc.

4) More sophisticated statistical techniques may be used for more detailed analysis of the data.

5) The population of the current study is only the students of class IX, further the primary level, pre-primary of higher secondary students can also be studied.

6) The research can be done involving different cities, villages, districts etc with a large sample.

7) A comparative study of students of rural and urban schools can also be taken into consideration for the research.

8) A detailed study of the demographic aspect of students and its impact on academic achievement can also be done.

9) It is a quantitative study, a more detailed qualitative study can be conducted with the help of open ended questionnaires or interviews.

10) The effect of pandemic on the higher education students can also be studied.

11) This research does not study the effect of Covid-19 on the parents or teachers. The research related with them can also be conducted.

REFERENCES

REFERENCES

- Ahluwalia, S.P. (2002). Manual for Children's Self-Concept Scale, Agra: National Psychological Corporation.

- Aleksander, Aristovnik. "How COVID-19 pandemic affected higher education students' lives globally

- and in the United States ." (2020).

- Anemona, Hartocollis. "After coronavirus, colleges worry: Will students come back?" (2020).

- Barry, H. Bacon, M.K., Child, I.L. (1957), 'A Cross-Cultural Survey of some Sex Differences in Socialization,' Journal of Abnormal And Social Psychology, no. 55,.

- Beauvoir, Simone, De. (1948) 'The Second Sex', Vivtage Books, New York.

- Behavior and self-concept of Indian adolescents. Journal of Indian Academy of Applied Psychology, 24.

- Best John W. and James V. Kahm (2003), Research in Education (VII th Ed.), Prentice Hall of India, New Delhi.

- Beteille, Andre (1964), 'Family and Social Change in India and other South Asian Countries', Economic Weekly Annual XVI, Delhi.

- Beteille, Andre (1965), 'Caste, Class and Power,' University of California Press,Berkley.

- Bhatia and Bhatia (1998), A textbook of Educational Psychology, Doaba Publishing house, Delhi.

- Block, A.E. (1973), 'Gender role stereotypes and the development of achievement motivation…' Ontario Psychologist, Signet, New York.

- Bowley, J (1953), 'Child care and the Growth of Love' Pelican, Harmondeworth Chicago.

- Buch M.B. (1992), Education Fifth Survey of Educational Research 1988-92, NCERT, New Delhi.

- Buch M.B. (1992), Education Fourth Survey of Educational Research, 1988-92, NCERT, New Delhi.

- Dungari A. Sindhu (1972), Factor Analysis measure of anxiety, intelligence and academic achievement, The Asian Journal of Psychology and Education Vol. 37. New Delhi.

- Dusek, Rue, Conger and Baumrind (1998), 'Parenting Styles', Alcuin Press, London.

- English, H. B. & English, A. C. (1958). A Comprehensive Dictionary of Psychological and Psychoanalytical terms, Longmans Green and Co. New York.

- Harkin, J. (2006). Happiness is an idea too, Panorama, Deccan Herald, 4th January,

- Hilgard, Emest R., Alkinson, Richard C. and Rita L. Akinson (1975), Introduction to Psychology (VI th Ed.), Oxford IBH publishing, New Delhi.

- Hurlock Elizabeth B. (1981), Developmental Psychology (V Ed.), Tata Mc Graw, New Delhi.

- Ibsen, Hernik (1950), 'A Doll House', Penguin Books, Intro.(cont.), Greart Britain.

- Kaitlyn, Hoevelmann. "How COVID-19 is affecting students' college decisions." (2020).

- Kamerman S. B. (1991) Child Care Policies and Programs: An International Overview. Journal of Social Issues; 47(2).

- Kaul Lokesh (1997), Methodology of Educational Research (Ed. III), Vikas Publishing House, New Delhi.
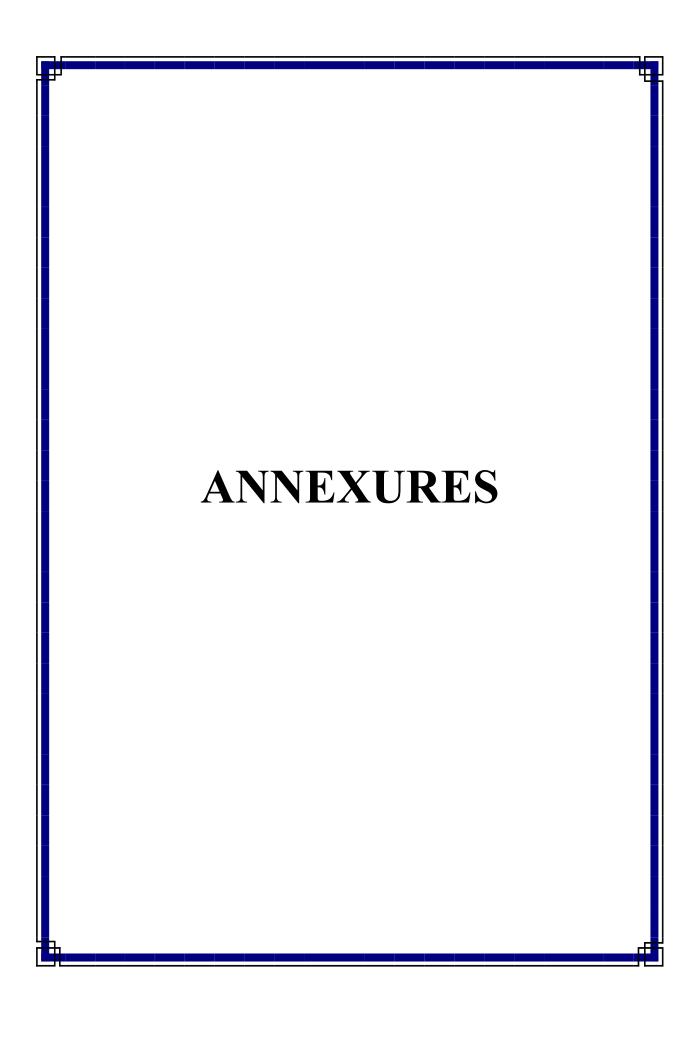
- Kerlinger, F.N. (1983), Foundation of Behaviour Research, Surjeet Publishing House, New Delhi.

- Kothari. C. R. (2000), Research Methodology & Technique, Vishwa Prakashan, New Delhi.

- Maccoby, E.E. and Jackline, C.N. (1974), 'The Psychology of Sex Differences', Stanford University Press, Stanford.

- Mandelbaum, David A (.1970), 'Society in India: Continuity and change ', Vol. I, University of California Press, Los Angeles.

- Mangelsdorf C. Sarah, Cynthia J. NeffSarah, Schoppe-Sullivan, Cynthia A. Frosch, GeoffreyL.Brown (2009) Young Children's Self-Concepts: Associations with Child Temperament, Mothers' and Fathers' Parenting, and Triadic Family Interaction Merrill-Palmer Quarterly - Volume 55, Number 2.

- Parsons, Talcott, (1959) 'The social structure of the family' in Anshen R, (ed.). The family- Its functions and destiny, Harper and Row, London.

- Paste, G., & Aminabhavi, V. (2006). Impact of emotional maturity on stress and Self confidence of adolescents. Journal of Indian Academy of Applied Psychology, 32.

- Pathak, R. D. (1970). Sex Differences among School Children in the Areas of Adjustment, Psychological Studies, (15), India.

- Personality and Social Psychology Bulletin September 1, 2008 34: 1226-1235

- Petric, W.M. Flindiars (1999), 'Social Life in Ancient Egypt', Tavistok Publications, London.

- Rees, A.N., & Palmer, F.H. (1991). Factors related to change in mental test performance. Developmental Psychology Monograph, Journal of Adolescent Research April 1, 1991 6: 235-252

- Roy, P. (1963). Adolescent roles: Rural urban differentials. In F.I. Nye and L.W.

- Sharma R.A. (2000), Dictionary in Education, Lal Book Depot, Meerut.

- Sharma R.A. (2000), Essentials of Scientific Behavioural Research, Lal Book Depot, Meerut.

- Singh A.K. (2000), Test, measurement and Research methods in Behavioural Science, Bharti Bhavan, Patna.

- Singh, Findria Menefee (1976), 'Neighborhood and Social Networks in Urban India: Voluntary Association of South Indians in Delhi, Marwah, New Delhi.

- Tedesh, J. T., Huston, D. S., Gahagan, J. P. & Trust and P.D.G. (1969): Journal of Social Psychology, 79 (1).

- Woodworth R. S. and Marquis D.G. (1965), Introduction of Psychology, Asia Publishers (Indian Ed.), New Delhi.

Internet Sources:-

- http://en.wikipedia.org/wiki/Student's_t-test#Independent_two-sample_t-test

- http://jar.sagepub.com/content/2/4/367.abstract

- http://library.bc.edu/F/N5C4X6LY2TBPRAUR151YNTPUFL5ANXHKF1IRVK5SVJ MA BBANK-00152?func=full-set-

- http://muse.jhu.edu/login?uri=/journals/merrill-palmer_quarterly/v055/55.2.brown.pdf

- http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1004913

- http://pediatrics.aappublications.org/cgi/content/abstract/52/3/327

- http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=2011-04413-004

- http://www.child-encyclopedia.com/documents/RuhmANGxp.pdf

- http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED178177&ERICExtSearch_SearchType_0=no&accno=ED178177
- http://www.gpnotebook.co.uk/simplepage.cfm?ID=x20050323103508411760
- http://www.graphpad.com/quickcalcs/ttest2.cfm
- http://www.numberempire.com/statisticscalculator.php
- http://www.jstor.org/pss/583927
- http://www.jstor.org/pss/584294
- http://www.ncbi.nlm.nih.gov/pubmed/17658987
- http://www.ncbi.nlm.nih.gov/pubmed/8935315
- http://www.physics.csbsju.edu/cgi-bin/stats/t-test_paste.n.plot
- http://www.pixel-online.net/edu_future/common/download/Paper_pdf/SOE29-Chraif.pdf
- http://www.statsdirect.com/help/parametric_methods/utt.htm
- http://hdl.handle.net/10603/387613
- http://hdl.handle.net/10603/437108
- http://hdl.handle.net/10603/252864

ANNEXURES

i - BASIC INFORMATION OF THE SUBJECT:

Note:- *The purpose of this questionnaire is to know the general introduction of the student studying in class-IX. This is purely for research purposes and your identity will not be disclosed in any circumstances. It will take only 5-6 minutes. You are required to fill it with honesty.*

1. Name:-

2. Father's Name:

3. Date of Birth:

4. Gender:

5. Name of the school:

6. Class:

7. Have you changed your school in the last 2 years?

8. If yes, then name of the previous school.:

9. Reason for leaving:

10. Were online classes conducted in your school during lockdown:

ii - Scale of Happiness

Note:- *The purpose of this questionnaire is to know about the level of happiness of the student studying in class-IX. This is purely for research purposes and Your identity will not be disclosed in any circumstances. It will take only 10-15 minutes. You are required to fill it with honesty.*

1. You feel healthy and full of energy throughout the day

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

2.   You don't get tired easily

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

3.   You sleep for 7 hours a day

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

4. You sleep immediately after hitting the bed

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

5. You feel sick when You get up in the morning

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

6. You feel happy in the company of your friends

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

7. You enjoy the company of Your parents

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

8.   You like people visiting Your home

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

9.   You participate in household course chores

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

10.   You feel You are lucky than Your friends

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

11.   You like sharing Your books and stuff with Your siblings

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

12.   You like sharing Your books and stuff with Your friends

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

13.   You can share Your room with others if there are guest at home

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

14.   You feel alone and aloof

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

15.   You feel Your parents love You more than Your siblings

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

16.   You like making new friends

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

17.   You participate actively in public speaking

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

18.   You feel happy with the company of more than two friends

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

19.   You like going to parties

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

20.   Your parents give value to Your opinion

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

21.   You like studying Your syllabus

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

22.   Your parents are happy with Your performance in Academics

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

23. You are satisfied with Your performance in Academics

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

24. You feel You are better than most of Your friends

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

25. You are optimistic about Your future

1. strongly agree,

2. agree,

3. neutral,

4. disagree,

5. strongly disagree.

iii Academic Achievement

Note: The following questions are only for research purposes and the name and marks of the subjects will not be disclosed.

Tick the correct answer of the following questions. Each question carries 1 mark. There is no negative marking.

MM: 50   Time: 2 Hours and 30 minutes

ENGLISH

1. **I _____ we should accept the offer.**

   1. think

   2. will think

   3. should think

   4. could think

   5. will be thinking

   Ans : a

2. **The town lies _____a thick black cloud of smoke.**

   1. over

   2. under

   3. on

   4. Below

   5. upon

   Ans : b

3.   She should be ashamed_____ her actions

1. by

2. at

3. of

4. in

5. to

Ans : c

Read the passage given below and tick the option that you consider the most appropriate

The beginning of this fun-filled season with the sun hidden behind the grey clouds brings cheer to many of us waiting eagerly to splash in the rains. Of course not everything about rain is glamorous .Especially when you think about endless traffic jams, the bad roads dotted with potholes, uncleared garbage and the spate of water borne diseases. Also viral infections like cold and cough make their presence felt.

Most infectious diseases prevalent in the rainy season can be prevented by simply washing our hands regularly. Scrubbing hands regularly with water and soap can prevent us from contacting respiratory and diarrheal diseases.

Kids have a lower level of immunity and hence hand washing becomes a crucial part of their lifestyle. When playing especially during monsoon season kids come into contact with germs and can unknowingly become infected simply by touching their nose, eyes or mouth .The Food and Drug Administration states that the human influenza virus can survive on surfaces for up to eight hours, making people susceptible to catching it each time they touch the infected surface. Hence repeated hand washing is required.

To make the best of the rainy season we should follow some simple guidelines .First of

all if we decide to get wet in rains we should change into a dry set of clothes at the earliest. Also we should keep raw food items at bay and wash vegetables and fruits thoroughly before use. Moreover, strict kitchen hygiene should be maintained in order to enjoy one of the most beautiful seasons of the year. Also, in order to have a trouble free rainy season home made fresh food should be given preference over the fast food sold in the market.

4.   People wait for the rains since they can _____in it.

1. Splash

2. have potholed roads

3. spate of water borne diseases

4. endless traffic jams

5. enjoy

Ans : a

5.   Besides maintaining kitchen hygiene we should_____ so as to keep us disease free in the rainy season.

1. avoid raw fruits

2. enjoy raw fruits

3. avoid vegetables

4. consume more fruits and vegetables

5. Avoid fruits and vegetables

Ans : a

6.   The passage suggests that small children should wash their hands_____ _____in the rainy season since they have lower immunity.

1. Frequently

2. Rarely

3. after every meal

4. before every meal

5. Never wash the hands

Ans : a

7.   The word in the passage which means the same as' prone and vulnerable 'is _____.

1. dotted

2. hygiene

3. susceptible

4. Influenza

5. Corona

Ans : c

Combine each set of the following sentences without using and, but or so

8.   She has a huge property. She must look after it.

1. She has a huge property which she must look after.

2. She has a huge property and she must look after.

3. She has a huge property for she must look after.

4. She has a huge property of she must look after.

5. She has a huge property therefore she must look after.

Ans : a

9.   She is going to London .She wants to pursue her studies there.

1. She is going to London as she wants to pursue her studies there.

2. She is going to London thus she wants to pursue her studies there.

3. She is going to London therefore she wants to pursue her studies there.

4. She is going to London because she wants to pursue her studies there.

5. She is going to London and she wants to pursue her studies there.

Ans: d

10.   When i was in trouble there was_____ to help me

1. anyone

2. no one

3. someone

4. everyone

5. all

Ans: b

MATHEMATICS

11.   When 1515—√ is divided by 3√3 find the quotient.

1.   5√3

2.   3√5

3.   5√5

4.   3√3

5.   None of the above

Ans: c

12.   One of the factors of $(x^3 - 1) - (x - 1)$ is

1. $x^2 + 1$

2. $x^2 - 1$

3. $x - 1$

4. $x + 4$

5. $x + 1$

Ans: c

13.   The number of parts the coordinates axes divide the plane is

1.   Two parts

2.   Four parts

3.   Six parts

4.   Eight parts

5.   Three parts

Ans: b

14. Equation of a line which is 5 units distance above the x-axis is

1. $x = 5$

2. $x + 5 = y$

3. $y - 5$

4. $x - y = 0$

5. $x - y = 1$

Ans: c

15. One of the angles of a triangle is 75°. If the difference of other two is 35°, then the largest angle of other two angles has a measure

1. 80°

2. 75°

3. 70°

4. 135°

5. 125°

Ans: c

16. In $\triangle ABC$, $\angle C = \angle A$ and BC = 4 cm and AC = 5 cm, then find length of AB.

1. 4 cm

2. 3 cm

3. 5 cm

4. 2.5 cm

5. 6 cm

Ans: a

17.   The bisectors of any two adjacent angles of a || gm intersect at

1. 30°

2. 45°

3. 60°

4. 90°

5. 120°

Ans: d

18.   The mean of five numbers is 30. If one number is excluded, their mean becomes 28. the excluded number is:

1. 28

2. 38

3. 35

4. 30

5. 25

Ans: b

19.   In a sample study of 640 people, it was found that 512 people have a high school certificate. If a person is selected at random, the probability that the person has a high school certificate is:

1. 0.5

2. 0.6

3. 0.7

4. 0.8

5. 0.4

Ans: d

20.   **The radius of a cylinder is doubled and the height remains the same. The ratio between the volumes of the new cylinder and the original cylinder is**

1. 1 : 2

2. 3 : 1

3. 4 : 1

4. 1 : 8

5. 1 : 4

Ans: c

SCIENCE

21.   **When a body falls freely towards the earth, then its total energy**

1. Increases

2. decreases

3. remains constant

4. first increases and then decreases

5. none of the above

Ans: d

22.   **Choose the character from the owing which confirms that it is an insect.**

1. Bilateral symmetrical body

2. Body with jointed legs

3. Cylindrical body

4. Body with little segmentation

5. none of the above

Ans: d

23.   In SONAR, we use

1.   ultrasonic waves

2.   infrasonic waves

3.   radio waves

4.   audible sound waves

5. none of the above

Ans: c

24.   How many times an atom of sulphur is heavier than an atom of Carbon?

1. 32 times

2. 12 times

3. 8/3 times

4. 12/32 times

5. 5/3 times

Ans: c

25.   Which cell does not have a perforated cell wall?

1. Tracheids

2. Companion cells

3. Sieve tubes

4. Vessels

5. none of the above

Ans: b

26.   One of the following factor does not lead to soil formation in nature:

1. The Sun

2. water

3. Wind

4. Polybags

5. Dry leaves

Ans: d

27. Value of acceleration due to gravity

1. is same on equator and poles

2. is least on poles

3. is least on equator

4. Not affected

5. Increases from poles to equator

Ans: c

28. Which one of the following disease is not caused by bacteria?

1. Typhoid

2. Malaria

3. Anthrax

4. Tuberculosis

5. Cancer

Ans: b

29. Which one is not a source of carbohydrates?

1. Gram

2. Rice

3. Millets

4. Potatoes

5. sorghum

   Ans: a

30. **Chromosomes are made up of**

1. DNA

2. Protein

3. DNA and protein

4. RNA

5. none of the above

   Ans: c

SOCIAL SCIENCES

31. **Who wrote an influential pamphlet 'What is the third Estate'?**

1. Mirabeau

2. Abbe Sieyes

3. Jean-Paul Marat

4. Olympe de Gouges.

5. None of the above

   Ans: b

32. **The Nazi Party had become the largest party by the**

1. 1920

2. 1925

3. 1926

4. 1930

5. 1932

Ans: e

33. **Who among the following was not the member of the Constituent Assembly?**

1. Mahatma Gandhi

2. Rajendra Prasad

3. T.T. Krishnamachari

4. Pt. Jawaharlal Nehru

5. none of the above

Ans: a

34. **Children below the age of cannot be employed in any factory or mine or in any other hazardous work.**

1. 12

2. 13

3. 14

4. 15

5. 16

Ans: c

35.   Which country was not involved in the triangular trade?

1.   England

2. China

3. India

4.   America

5. nepal

   Ans: d

36.   The world's largest drainage basin is of the

1.   Amazon river

2.   Nile river

3.   Ganga river

4.   Hwang Ho river

5. Brahmaputra river

   Ans: a

37.   The eastern most longitude of India is

1.   97°25'E

2.   68°7′ E

3.   77°6'E

4.   82°32'E

5. none of these

   Ans: a

38.   Which state has the lowest population in India?

1. Uttar Pradesh

2. Himachal Pradesh

3. Sikkim

4. All of these

5. none of these

Ans: c

39.   Which one of the following statements about the President is wrong?

1. He is the head of the state.

2. He is the highest formal authority in the country.

3. He exercises only nominal powers.

4. He is elected directly by the people.

5. All the above

Ans: d

40.   Who appoints the Chief Election Commissioner of India?

1. The Chief Justice of India

2. The Prime Minister of India

3. The President of India

4. The Law Minister of India

5. The Education Minister of India

Ans: c

HINDI

पाठक आमतौर पर रूढ़ीवादी होते हैं। वे सामान्यतः साहित्य में अपनी स्थापित मर्यादाओं की स्वीकृति या एक स्वप्र जगत में पलायन चाहते हैं। साहित्य एक झटके में उन्हें अपने आसपास के उस जीवन के प्रति सचेत करता है। जिससे उन्होंने आंखें मूंद रखी थी। शतुरमुर्ग अफ्रीका के रेगिस्तान में नहीं मिलते, हर जगह बहुतायत में उपलब्ध है।

प्रौद्योगिकी के इस दौर का नतीजा जीवन के हर गोशे में नकद फसल के लिए बढ़ता हुआ पागलपन है; और हमारे राजनीतिज्ञ, सत्ता के दलाल, व्यापारी, नौकरशाह सभी लोगों को इस भगदड़ में नहीं पहुंचने, जैसा दूसरे करते हैं वैसा करने, चूहा दौड़ में शामिल होने और कुछ ना कुछ हासिल कर लेने को जिए जा रहे हैं।

हम थक कर सांस लेना और अपने चारों ओर निहारना, हवा के पेड़ में से गुजरते वक्त पत्तियों की मनहर -लय गतियों को, और फूलों के जादुई रंगों को, फूली सरसों के चमकदार पीलेपन को, खिले मैदानों की घनी हरीतिमा को, मर्मर ध्वनि के सौंदर्य, हिमाच्छादित शिखरों की भव्यता, समुद्र तट पर पछाड़ खाकर बिखरती हुई लहरों के घोष को देखना सुनना भूल गए हैं.

कुछ लोग सोचते हैं कि पश्चिम का आधुनिकतावाद और भारत तथा अधिकांश तीसरी दुनिया के नव-औपनिवेशिक चिंतन के साथ अपनी जड़ों से अलगाव, व्यक्तिवादी

अजनबियत में हमारा अनिवार्य बेलगाम धंसाव, अचेतन के बिंब, बौद्धिकता से विद्रोह या यह घोषणा कि 'दिमाग! अपनी रस्सी के अंतिम सिरे पर है', यथार्थवाद का विध्वंस, काम का इंद्रिय सुख मात्र रह जाना और मानवीय भावनाओं का व्यवसायीकरण तथा निम्स्तरीयकरण इस अंधी घाटी में आ फंसने की वजह है. लेकिन वे भूल जाते हैं कि आधुनिकीकरण इतिहास की एक सच्चाई है, कि नई समस्याओं को जन्म देने और विज्ञान को और अधिक जटिल बनाने के बावजूद आधुनिकीकरण, एक तरह से, मानव जाति की नियति है.

मेरा सुझाव है कि विवेकहीन आधुनिकता के बावजूद आधुनिकता की दिशा में धैर्यपूर्वक सुयोजित प्रयास होने चाहिए. एक आलोचक किसी नाली में भी झांक सकता है, पर वह नाली निरीक्षक नहीं होता. लेखक का कार्य दुनिया को बदलना नहीं, समझना है. साहित्य क्रांति नहीं करता, वह मनुष्यों का दिमाग बदलता है और उन्हें क्रांति की आवश्यकता के प्रति जागरूक बनाता है.

निम्नलिखित में से सर्वाधिक उपयुक्त विकल्पों का चयन कीजिए

41.   गद्यांश में शतुरमुर्ग की संज्ञा किसे दी गई है?

1. लेखक जो संसार को समझना चाहता है.

2. राजनीतिज्ञ जो अपने स्वार्थ साधना चाहता है.

3. पाठक जो सपनों की दुनिया में रहना चाहता है.

4. नौकरशाह जो दूसरों जैसा बनने की होड़ में शामिल है.

Ans: c

42. आधुनिकता की दिशा में सुयोजित प्रयास क्यों होने चाहिए?

1. इससे जीवन सुगम हो जाएगा तथा मानव प्रकृति का आनंद ले सकेगा .

2. नयी समस्याओं को जन्म लेने के पहले ही रोका जा सकेगा.

3. आधुनिक होने की प्रक्रिया सदा से मानव सभ्यता का अंग रही है.

4. इससे विज्ञान सरल हो अधिक मानव कल्याणी हो सकेगा.

5. उपरोक्त में से कोई नहीं

Ans: c

43. नकद फसल के लिए बढ़ता हुआ पागलपन से क्या तात्पर्य है?

1. लोग तुरंत व अधिक से अधिक अधिक लाभ कमाना चाहते हैं

2. लोग प्रकृति को समय नहीं देना चाहते हैं.

3. लोग थके हुए हैं पर विश्राम नहीं करना चाहते.

4. लोग भौतिकवादी तथा अमीर लोगों की नकल करना चाहते हैं.

5. उपरोक्त में से कोई नहीं

Ans: a

44. लेखक के अनुसार साहित्य क्या कार्य करने के लिए प्रेरित करता है?

1. लोगों को यथार्थ से अवगत करा बदलाव के लिए.

2. लोगों को जीवन की समस्याओं को भुला आगे बढ़ते जाने के लिए.

3. लोगों को यथार्थवाद का विध्वंस करने के लिए.

4. लोगों को भावनाओं व एन्द्रिक सुख से ऊपर उठकर कार्य करने के लिए.

5. उपरोक्त में से कोई नहीं

Ans: a

45. प्रत्येक' शब्द में प्रयुक्त उपसर्ग है -

1. A) प

2. B) प्रति०

3. C) प्रति

4. D) प्र

5. उपरोक्त में से कोई नहीं

Ans: b

46. उपस्थिति' शब्द में प्रयुक्त उपसर्ग है -

1. A) उ

2. B) अप्स

3. C) उप

4. D) उपस्

5. उपरोक्त में से कोई नहीं

Ans: c

47. दशानन का समास विग्रह है:

1. दश आनन

2. दश आनन वाला

3. दश आनन हैं जिसके वह

4. दश आननों वाला

5. उपरोक्त में से कोई नहीं

Ans: c

48. मधुबन की छाती को देखो , सूखी कितनी इसकी कलियाँ में कौन सा अलंकार उपयुक्त हुआ है?

1. रूपक

2. शलेष

3. उपमा

4. अनुप्रास

5. उपरोक्त में से कोई नहीं

Ans: b

49. ''कन्नी काटना'' मुहावरे का अर्थ बताइये?

1. बचना

2. तैयार होना

3. वश में करना

4. कान काटना

5. चाकू काटना

Ans: a

50. ''सिंह'' शब्द का जो पर्यायवाची नहीं है उसे चुनिए

1. शेर

2. केसरी

3. मृग

4. मृगराज

5. उपरोक्त में से कोई नहीं

Ans: c

iv

Manual
for

SINHA'S
COMPREHENSIVE
ANXIETY
TEST
SCAT-ss

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INTRODUCTION

During the past three decades or so, the concept of anxiety has figured prominently in the psychological literature. *Sarason and Mandler (1952)* gave a detailed description of an anxiety questionnaire and presented findings on the relation of test anxiety to certain psychometric and social-class data. They reported the relationship of the anxiety questionnaire to one concerned with habitual reactions to frustrations, *Taylor (1953)* developed a personality scale for measuring manifest anxiety which has proved to be a useful device in the bands of researchers and practitioners. *Cattell, R. B. (1957)* constructed the IPAT anxiety scale ('self-analysis form'). In 1958 Cattell and Scheler compared results of 13 multivariate analysis, having in common the method of oblique rotation to simple structure, but involving a variety of subjects and variables which emphasized putative measures of anxiety. *Martin (1959)* reported that anxiety factor was relatively independent of intelligence, motivation in psychological experimentation and paper and pencil test.

On an examination of tests of anxiety in existence (both Indian and Foreign), the present authors found that they were not covering certain facets of anxiety. Further, there existed a good deal of disagreement and confusion concerning the concept of anxiety. Several aspects of anxiety appeared to be ignored. All these considerations led to the development of this comprehensive test of anxiety incorporatin a variety of anxiety indices proposed by different investigators from time to time, keeping in view the conditions available in this country.

DEVELOPMENT OF THE TEST

Item Construction

The items of the test were largely constructed on the basis of the symptoms of anxiety reported by those who visited the Institute of Psychological Research and Service, Patna University for psychological assistance. A few items from the existing tests of anxiety were also incorporated after such modifications as were considered necessary. Thus initially 315 items were prepared. These items were given to five judges (all engaged in counselling and psychological testing work) for examining the merit of each item for inclusion in the test of anxiety. They were also asked to score out those items which they thought were redundant. On the basis of 100% agreement among the judges, 70 out of 315 items were eliminated.

Item Analysis

Before undertaking the work of item analysis, the remaining 245 items were tried out on smaller samples several times and necessary modifications made in them to ensure that the items were intelligible to the students. Finally, the test was administered on 100 college students who approached for psychological assistance complaining of one or several symptoms of anxiety. No time limit was imposed. The subjects were

required to respond to each item in terms of 'Yes' or 'No'. The 'Yes' response to any item was indicative of anxiety and was given score of one. A score of zero was given to a 'No' response. For item analysis, the point biserial correlations were computed. The criterion of a coefficient of correlation, being significant at .001 level was fixed for the inclusion of an item in the final test. Out of 245 coefficients of correlation, 90 were significant at or beyond .001 level. Consequently, those 90 items which fulfilled the criterion constituted the test in its final form.

RELIABILITY

The coefficient of reliability was determined by using the following two methods :–

1. The *Test-re-test method* (N = 100) was employed to determine the temporal stability of the test. The product moment correlation between the test and restest scores was 0.85.

2. The internal consistency reliability was ascertained by adopting *odd-even procedure* (N = 100). Using the Spearman Brown formula, the reliability coefficient of the test was found to be 0.92.

Both the values ensure a high reliability of the test.

VALIDITY

The coefficient of validity was determined by computing the coefficient between scores on Comprehensive Anxiety Test and on Taylor's Manifest Anxiety Scale. It was .62, which is significant beyond .001 level of confidence.

INSTRUCTIONS FOR ADMINISTRATION

1. The instruction printed on the test form should be made clear by test administrator to the testee.

2. No time limit is fixed for completing the test. However, usually an individual takes 15 to 20 minutes in completing the test form.

3. It should be emphasized that there is no right or wrong response to the statements. They are designed to study individual's reactions to different situations.

4. It should be pointed out that each item has to be responded in either positive or negative terms, *i.e.,* Yes or No, and that no statement should be left out.

5. It is undesirable to tell the testee about the aim of the test.

SCORING

The inventory can be scored accurately by hand and no scoring key or stencil is provided so far. For any response indicated as 'Yes', the testee should be awarded the score of **one,** and **zero** for **'No'**. The sum of all the positive or yes responses would be the total anxiety score of the individual.

SCORING KEY

Statement	Response		Statement	Response	
Serial No.	Yes (हाँ)	No (नहीं)	Serial No.	Yes (हाँ)	No (नहीं)
1	1	0	26	1	0
2	1	0	27	1	0
3	1	0	28	1	0
4	1	0	29	1	0
5	1	0	30	1	0
6	1	0	31	1	0
7	1	0	32	1	0
8	1	0	33	1	0
9	1	0	34	1	0
10	1	0	35	1	0
11	1	0	36	1	0
12	1	0	37	1	0
13	1	0	38	1	0
14	1	0	39	1	0
15	1	0	40	1	0
16	1	0	41	1	0
17	1	0	42	1	0
18	1	0	43	1	0
19	1	0	44	1	0
20	1	0	45	1	0
21	1	0	46	1	0
22	1	0	47	1	0
23	1	0	48	1	0
24	1	0	49	1	0
25	1	0	50	1	0

Statement Serial No.	Response Yes (हाँ)	Response No (नहीं)	Statement Serial No.	Response Yes (हाँ)	Response No (नहीं)
51	1	0	71	1	0
52	1	0	72	1	0
53	1	0	73	1	0
54	1	0	74	1	0
55	1	0	75	1	0
56	1	0	76	1	0
57	1	0	77	1	0
58	1	0	78	1	0
59	1	0	79	1	0
60	1	0	80	1	0
61	1	0	81	1	0
62	1	0	82	1	0
63	1	0	83	1	0
64	1	0	84	1	0
65	1	0	85	1	0
66	1	0	86	1	0
67	1	0	87	1	0
68	1	0	88	1	0
69	1	0	89	1	0
70	1	0	90	1	0

NORMS

Norms for the test have been prepared on a sample of 400 college students of B.A. classes consisting of both the sexes — 200 boys and 200 girls. Percentile norms are provided in Table 1 for boys and Table 2 for girls separately. These should be

considered as a reference points for interpreting the test scores. However, it is advisable to large scale users of the test to develop their own norms based on their own population.

The individual may be classified into five categories on the basis of scores obtained on the inventory. An individual with an extremely high score of above the 75th percentile may be regarded as hyper-anxiety individual. His personality is complicated and he may be in need of counselling and psychotherapy. The extremely low scores, below 25th percentile, may indicate the person as undermotivated and sluggish. The middle group of scores would represent essentially normal individuals.

TABLE 1

Percentile Equivalents of Test Scores for Boys

Percentiles	Scores	Interpretation
P_{99}	69	**Extremely High Anxiety**
P_{95}	42	
P_{90}	35	
P_{80}	30	
P_{75} (Q_3)	29	High Anxiety
P_{70}	28	
P_{60}	23	**Normal Anxiety Level**
P_{50} (Md)	20	
P_{40}	17	
P_{30}	15	Low Anxiety
P_{25} (Q_1)	14	
P_{20}	12	**Extremely Low Anxiety**
P_{10}	8	
P_{5}	3	
N	200	
Mean	22.30	
Median	19.94	
S.D.	12.40	

TABLE 2

Percentile Equivalents of Test Scores for Girls

Percentiles	Scores	Interpretation
P_{99}	71	
P_{95}	41	Extremely High Anxiety
P_{90}	36	
P_{80}	29	
P_{75} (Q_3)	28	High Anxiety
P_{70}	27	
P_{60}	25	
P_{50} (Md)	23	Normal Anxiety Level
P_{40}	20	
P_{30}	16	Low Anxiety
P_{25}(Q_1)	15	
P_{20}	13	
P_{10}	9	Extremely Low Anxiety
P_5	4	
N	200	
Mean	23.05	
Median	22.86	
S.D.	10.90	

REFERENCES

Cattell, R. B. (1957). The IPAT Anxiety Scale (Self-Analysis Form). *Jour. Consult. Psychol.*, 21, 438.

Cattell, R. B. and Scheler, I. H. (1958). The Nature of Anxiety : A review of thirteen multivariate analysis comprising 814 variables. *Psychol. Rep.*, 4, 351-388.

Martin, B. (1959). The Measurement of Anxiety. *Jour. Gen. Psychol.*, 61, 189-203.

Sarason, S.B. and Mandler, G. (1952). Some Correlates of Test Anxiety. *Jour. Abn. and Social Psychol.*, 47, 810-817.

Sarkar, S. (2015). Examination Anxiety Scale. Agra : National Psychological Corporation.

Sood, V. and Anand, A. (2012). Educational Anxiety Inventory. Agra : H. P. Bhargava Book House.

Taylor, J. A. (1953). A Personality Scale of Manifest Anxiety. *Jour. Abn. and Social Psychol.*, 48, 285-290.