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[mailto: editor.samwaad@gmail.com](mailto:editor.samwaad@gmail.com)

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Samwaad Educational Society registered under MP society act, is happy to launch Vol. 8 Issue 2 of its online e-Journal “**Samwaad: e-Journal**”. This journal is hosted on the “Samwaad” website <http://samwaad.in>

On this occasion, the entire team of Samwaad thanks all its board members, Site members, Technical team, Professors & Researchers for their valuable suggestions, input & guidance.

With all the very best wishes,

- Team “Samwaad”

**“EDUCATION IS A KIND OF CONTINUING
DIALOGUE, AND A DIALOGUE ASSUMES
DIFFERENT POINTS OF VIEW.”**

ROBERT M. HUTCHINS



From the Desk of Chief Editor

Education is one of the intervening variables of social change. The role of Education as an instrument of social change and development is widely reorganized today. Education can bring changes in the outlook and attitudes of people; to change people means to change society. On the other hand society undergoes continuous changes over time. A nomadic society in the ancient past transformed into various forms in the progress of time to learning society , then agricultural society, industrial society and now as information society ,(though we call it as knowledge society) because information transferred is in such a faster rate, that it is very difficult to transform into knowledge in short span of time. Samwaad is prolonging encouragement of “digital dialogue” to set a Learning Community of knowledge society as a tool for transformation. In the light of rapidly expanding technology of this age, Education must become significantly more effective to retain its status and should be a progression towards excellence and wisdom. Our endeavor could be seen as wings for the progress of the educators and learning surroundings. Dialogue helps in shared learning for teacher’s to improve creation, acquisition, dissemination, and implementation of the knowledge.

I am happy to present this next volume of Samwaad to facilitate learning and enhance the knowledge about recent researches in humanities.

I intend to have an open interaction of all esteem Educationists, Teachers, Researchers and Learners in an ongoing fashion and welcome all for collaborative, encouraging, open-minded & accessible learning.

I welcome ongoing dialogue with you and can be contacted at editor.samwaad@gmail.com

Dr. Anshu Mathur

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JOB SATISFACTION AND WORK PERFORMANCE OF HIGHER SECONDARY SCHOOL TEACHERS

Brij Mohan Singh

Research Scholar

Dr. Veena Jha

Principal

Chouhan College of Education, Bhopal

Abstract

Teaching is a highly noble profession and teachers are always a boon to the society. The teacher plays a direct and crucial role in moulding a pupil towards education. There are three basic elements in our education system teacher, learner and subject matter. Here teacher is the heart of every educational system and the success of system in the attainment of educational goal depends largely on the quality and effectiveness of its teachers.

The present study aims to find out the job satisfaction and work performance of higher secondary school teachers. A total population from a sample of 400 teachers of state board and matriculation board and central board schools had been selected for the study. The results of the study indicated that teacher in central board schools were significantly better in their job satisfaction and performance compared to their counterparts in different categories of schools following different system of education. They were contented with their job satisfaction facts such as school policies, supervision, pay, interpersonal relations, opportunities for promotion and growth, working conditions, work itself, achievement, recognition and responsibility. This implies that a teacher's satisfied with their job is also a productive one. So, they will develop and maintain high level of performance.

Keywords: Job satisfaction work performance of teachers and higher secondary school.

Introduction

Education is an instrument for the all round development specifically economic, social, political, cultural, scientific, technological industrial development of nation has been continuously recognized by our leader and educationalist since independence. Education is the most effective means of changing the attitude of its recipients.

One of the basic elements in our education system is teacher. He is the foundation stone of any education system panda and Mohanthy (2003) the teacher is the pivote of any education system.

To achieve the educational gole a quality education is essential and largely depends on our satisfied teachers. Job satisfaction is one of the important factors in any education system. Teachers who are not satisfied with their job will not be committed and productive. There are many factors that influence the teacher's job performance such as aptitude, attitude, subject matter, teaching methodlogy, personal characteristics, the classroom environment, general mental ability, personality, and relations with student. Job satisfaction one of these important factors.

Need of the study

Teacher is a role model for the students, job satisfaction and the performance of a teacher becomes very vital role in the field of education. It assessed the present condition of the teachers of different categories of schools. It's result promote work performance and job satisfaction of teachers and professional growth of administrators towards better education. Thus the researcher felt the need to investigate the job satisfaction and performance of teachers in different categories of schools following different systems of education.

Review of related literature

Bala, Ranjan (2015) conducted a study of job satisfaction of senior secondary school teachers in relation to leadership styles of principles. Findings were the teachers tend to have favorable attitude towards their job in a democratic at mosphere.

Barse, Meena (2013) studied a study of empowerment, self esteem and job satisfaction of teacher educators. Results were there are significant correlation in empowerment and job satisfaction among women teacher working in K.V. Schools.

Khuntia, Usharani etal. (2013) studied the job satisfaction of secondary school teachers. The findings reveal that 32%, 41% and 27% of teachers have high average and low levels of job satisfaction respectively.

Certin (2006) carried a research to find out if there is a significant different between job satisfaction, occupational and organizational commitment of 132 academics and found a significant relationship between satisfaction and performance.

Objective of the study

- To investigate if there is any significant relationship between the job satisfaction and performance of teachers in state, matriculation and central board schools at the higher secondary level.
- To investigate if there is any significant difference in job satisfaction and performance of teachers in state, matriculation and central board schools at the higher secondary level.

Methodology of the study

A survey type method has been designed to achieve the objectives of the study.

Variables

The variable chosen in the present study are job satisfaction and work performance.

Operational definition of key words

Job Satisfaction - According to Webster (1976) "**Satisfaction means the fulfillment of need or desire.**"

Work Performance - The act of performing something in front of an audience.

Higher Secondary School - Schools which run up to Class XII.

Sampling - From the largest population a sample of 400 teachers was chosen for the present study.

Tools - Job satisfaction scale has adapted to analyze the job satisfaction and performance of teachers in different systems of education at the higher secondary level developed by Dr. Meera Dixit (1993) and effective performance appraisals (Maddux, 2004).

Method for analysis of data

The data were analyzed by using appropriate statistical technique such as standard deviation to find out the results.

Finding of the study

Job satisfaction is either a global feeling about the job or a related constellation of attitudes about various aspects of facts of the job. Robbins and others (1994) indicated that the more important factors conducive to job satisfaction include mentally challenging work, equitable rewards supportive working conditions and supportive colleagues.

In the present study investigating the job satisfaction and performance of teachers in different categories of schools following different systems of education, namely the state, matriculation and central board schools, it is seen that there is a significant difference of job satisfaction and performance of teachers. The teachers in central board schools are significantly better in their job satisfaction and performance compared to their counterparts in matriculation and state board schools. In central board schools, the infrastructure facilities, pay scale, working hours, recognition for the teachers work load, class size number of classes handled per day, attitude of students, awareness and mentality of the parents, socio-economic status of the parents, are all significantly better and favourable for the teachers working there.

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THEORETICAL KNOWLEDGE VS PRACTICAL KNOWLEDGE

Ms. Jipsy Malhotra

Assistant Professor

Amity Institute of Education, Amity University, Noida

Saumya Arora

B.Ed. student at AIE, Amity University

Abstract

We have dependably been participating in the ceaseless discussion of whether one should prioritize the practical information first or the theoretical learning. Contradicting contemplations rotating around the two are not peculiar or new. We have dependably been attempting to discover which one is better, and which one isn't. We as a whole realize that this discussion may never end however at that point, we can even now attempt to discover a few answers from the concealed discussions.

There are various types of learning and diverse methods for gaining every sort. On one side is hypothesis or the theoretical knowledge and on the opposite side is the functional utilization or practical use of hypothesis. The two sorts of learning are vital and both improve you at whatever you do. Hypothetical Knowledge is commonly concerned about "Why something occurs" while Practical learning manages the "how" part of an idea. One may get familiar with the theory however for practical information; it needs progressive utilization of brain boost to take a shot at the issue.

Keywords: Hypothetical learning, functional utilization, experiential learning

Introduction

Diligent and hard work is the way to progress. This statement is exceptionally amazing and great to hear. Does the diligent work suggest to the hardships of the life, or simply constrained to the examinations is the issue before us today?

In everyday life, we see guardians nagging their kids to examine hard so as to be fruitful throughout everyday life. They proceed with a wide range of practices, from appointing tutors privately; to getting leaves for the children amid their tests; and uncommon few have left their jobs to concentrate on their

children's examinations. In the competitive world, each parent is desperate to see their youngster achieving the best position. In any case, they regularly overlook that each child has its very own potential and each child can't be first.

To every one of those parents, in the event that they can think carefully, wouldn't they be able to portray any case of a prominent identity who has never studied well throughout his life. Abraham Lincoln, Einstein, Newton; experiencing their life accounts, have they been the most studious individuals on the planet? The appropriate response is "No". At that point perhaps, we are incorrect at some place in our frame of mind towards life today. We have to think profoundly and break down the certainties as opposed to taking a part in the bull race.

An effective individual is the person who lets his brain to work extraordinarily; something the others have never thought of. Hard work is unquestionably the key fixing to progress. Be that as it may, the individual should know the zone where to work hard. Hard work is productive in the field of intrigue, as opposed to mugging up the academic information. Sharp perception, splendid theory, untiring repeated experimentation, learned translation; these are the fundamental qualities in life for giving a productive outcome.

Life isn't hard to deal with, and yet, it isn't too simple to be constantly bright. We have to bite the sustenance before gulping. All the nourishment particles may not be delicate, we have to bite the hard and coarse sustenance particles too to swallow and have a decent absorption and digestion. A similar way, we have to deal with the hardship's particle an insightful way. The common sense is required to handle any circumstance we are stuck in, and this good judgment doesn't originate from studying hard. For that the brain ought to be raised in a productive way, open to crisp contemplations and thoughts.

The individual who faces a predicament in life is unmistakably more confident than the person who has examined that circumstance. A battling individual certainly discovers out, and this part of his life shows him a significant experience for his lifetime.

Nobody in this world is born champion. Everybody battles throughout his life, some less, some more, in changing degrees, to have a good existence. Achievement originates from hard work and determination and not just by luck. An individual needs a solid personality to be resolved, and the mental strength is picked up by the mode of different everyday difficulties.

The entire discourse rotates round the way for being fruitful throughout everyday life. It without a doubt is the hardships and harsh times in life that gives assurance and strength to fight the circumstance back. In any case, this in no way, shape or form suggests that one doesn't have to study. Studies certainly play an imperative job in our advancement. A youngster picks up the fundamental learning from his studies only.

Thus, it would be ideal if you study well, however don't restrain your minds to the academic learning. Turn out, investigate the world and win the hidden fortune of distinction with battling back capacity and determination.

Theoretical Knowledge Vs Practical Knowledge

With regards to information, we have different methods for getting it. These modes include books, lectures, seminars, events, competitions and even schooling. Amongst these, few lie in the category of theoretical knowledge and others under practical knowledge. People tend to prefer practical knowledge over the theoretical, but then we have to understand that if there was no book, how could you have known about Einstein's inventions and theories, right?

The discussion isn't about which one is progressively cardinal in nature. All things considered, the discussion is about which of these two is of more use than the other.

Without theoretical learning, you can't drive a vehicle and without a practical understanding, you'll end up failing badly. Theoretical information gives all of you the appropriate responses in connection to 'why', and practical knowledge tends to aware you about 'how'.

Both are prominent at their own instances and neglecting one could lead to drastic failure in the other. Theory provides you the apt information about the experiences of others and practical knowledge helps you build your own experiences. To simplify the topic, there is no theoretical knowledge or practical one, it's all about formal education and self-learning. Hard knowledge and soft knowledge, both are like two distant beaches, it is you who has to find and build a strong bridge between the both.

As said by the great Yogi Berra, "In theory, there is no difference between theory and practice. In practice there is". And also, "Knowledge is of no value unless you put it into practice and practice is

never possible without a deep knowledge”, as said by Anton Chekhov. We all have to find a balance between the two else, the debate is of no use and has no end.

Practical learning is information that is gained by everyday hands-on encounters. In other words, practical information is increased through getting things done; it is especially founded on real life tasks and assignments. On the other side, theoretical information teaches the thinking, reasoning, procedures and hypothesis of knowledge. While practical information is picked up by getting things done, theoretical learning is picked up, for instance, by reading a manual.

Practical learning and theoretical information are two totally distinct ways to deal with knowledge. While theoretical learning may ensure that you comprehend the key ideas and have think what about how something functions and its system, it will only get you so far, as, without practice, one is not able to perform the activity as well as he could. Practical knowledge guarantees that you are able to actually do something instead of simply knowing how to do it.

Would you be able to imagine somebody instructing you to swim or drive a vehicle, inside four walls of a classroom? It is impossible!! You have to be out on the road to learn driving. Some subjects are skill based and practice oriented. Theoretical knowledge of skill- based subjects needs to be supported by practice. Subjects like teaching and engineering are skill based. In these subjects, practical knowledge is more important than theoretical knowledge. Practical work includes experiments in laboratories, study tours, projects, assignments etc. the advantages of practical work are unmatched. Getting theoretical knowledge has no value until students can apply it for practical purposes. When you accomplish something with your own hands you recall better.

- Practical work advances experiential learning.
- Practical work supports self-learning.
- Practical work familiarizes students with tools and equipment that he will be required to use.
- Practice leads to perfection.

Hence, there are several benefits of practical work. At the same time, it must be remembered that theoretical knowledge is also important. Practical work is application of theory. Theory creates a

strong base for practical work. One must be able to achieve a balance between theory and practice for best results.

Conclusion

One can't turn into a specialist overnight; more the practice, more the expertise. Practical work is a decent change from the dull lecture strategy. Students are required to take an interest effectively in practical exercises. Inclusion of students is more in experiential work. Practical work compliments theory. Practical assignments are regularly done in groups. Group work instills social qualities and qualities like sharing, collaboration, solidarity, sympathy and so on.

Down to earth work makes students free and builds their confidence. Students who complete engineering education often find that when they start working, they are at a loss in spite of getting very good marks in the examination. Practical information in advance helps to boost their confidence. Henceforth, there are many advantages of practical work. In the meantime, it must be recollected that theoretical learning is also essential. Practical work is application of theory. Theory makes a solid base for practical work. One must be able to achieve a balance between theory and practice for best results. Theory and practice are opposite sides of a similar coin.

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HIGHER SECONDARY SCHOOL TEACHERS COMPUTER KNOWLEDGE AND THIER ATTITUDE TOWARDS COMPUTER

Dr. Smriti Malhotra

Assistant Professor

Amity Institute of Education, Amity University, Noida

Priya Awana

Pre-service Teacher

Amity Institute of Education, Amity University, Noida

In the present digital era , the development in various aspects of computer technology has reached beyond our imagination and expectations . Even though computer has a lot of applications in various fields, one should not forget its applications in the field of education. It is very useful and helpful in the teaching and learning process. Therefore, computer literacy is very much needed for teachers as well as learners. The computers have created a revolution in the nature of learning process. They have the capability of multiplying the human intellect beyond part conceptions and tremendous implications for education. They have a great impact upon our educational system. The teachers should be in terms with the physical reality of the computers, and learn how to take actual advantage of the machines educational potential. For this, computer knowledge is essential for teachers. Computer knowledge may be stated as "knowing about the various fundamental aspects of computers and the basic skills involved in the operation of computers". It also includes the applications of computer in teaching and learning process. If we consider teachers as sample, E-learning helps the learner to know about the subject he/she wants to learn with the help of the latest technology, the computer. Favorable attitude towards computer plays a very important role in making one really interested in it. Unless the teachers possess a favorable attitude towards computer, they may be a chance for them to be motivated in acquiring knowledge and also the attitude towards computers .The central and state governments are taking tremendous efforts to implement the computer application in the process of teaching and learning. The state government has introduced computer course in the higher secondary schools and in other classes also. The government has started supplying computer to higher secondary schools with suitable software and has started providing facilities to develop computer laboratory. At this juncture, the investigators feel the government, after conducting more studies in this area would have taken

these efforts. To fall in line with this, an attempt has been made to study the teacher's computer knowledge and their attitudes towards computer.

According To Research:

- In respect of the entire sample of teachers, only 16.70 %of them belonged to the high level of computer knowledge and as much as 83.30%of them belonged to the low level of computer knowledge. This trend is seen in respect of the sub -samples, too. These findings reveal that the teachers are weak in their computer knowledge.
- As much as 60.40% of the teachers and relatively a favorable attitude towards computer and only 39.60% of them had relatively a unfavorable attitude towards computer. This trend is seen in respect of the sub samples, too.
- There was no significant difference in computer knowledge between the teachers working in the urban and rural schools. Moreover, the teachers working in urban schools were better than their rural counterparts in respect of their computer knowledge.
- There was no significant difference between the secondary grade teachers and graduate teachers.
- There was a significant difference in attitude towards computer between the graduate teachers and postgraduate teachers. Moreover, the postgraduates teachers were better than graduate teachers in their that favorableness of attitude towards computer

Conclusion

It is a very unique study conducted in developing countries like India, to study the teacher's computer knowledge and teacher's attitude towards computer. This reveals that the knowledge of computer teacher needs to be improved.

CONTINUOUS AND COMPREHENSIVE EVALUATION IN SECONDARY SCHOOL: AWARENESS AND PROBLEMS OF STUDENTS

Dr. Priyanka Singh Niranjana

Assistant Professor at AIE, Amity University, Uttar Pradesh

Ms. Sonali Jain

B.Ed. student at AIE, Amity University

Abstract

An education system cannot be considered without any philosophical approach. This is an aspect that is adhered by all teachers, schools and administrators. The purpose of education is all-round development of the child / individual. The Report of the International Commission on Education for 21st Century to UNESCO referred to four planes of living of human individuals viz; physical, intellectual, mental and spiritual. This means that an all-round development of every individual implies optimization of hidden potential in the physical, intellectual, mental and spiritual planes. As time changes education is becoming more and more of a life-line, especially in the present era of globalization.

Introduction

Aims in Policies and Committees/Commissions/Reports, almost all policy and curricular documents on education in India contain some form of aims of education. These are nearly always preceded by an account of national concerns and priorities, and the role perceived for education in nation building. If we take anything, the evaluation system is more important which gives us final output. Historically, the evaluation procedures is claimed to bring enormous changes from the traditional chalk and talk method of teaching from Hunter Commission (1882) to NCF 2005. Indian Education commission, 1882(Hunter Commission) suggested that the upper and lower primary examinations should not be made compulsory and “care should be taken not to interfere with the freedom of the managers of aided schools in the choice of textbooks”. Calcutta University Commission or Sadler Commission (1917-1919), Hartog Committee Report.

Need of comprehensive education

The aim of CCE is to decrease the workload on the student by means of evaluating at regular intervals by taking number of small tests throughout the year in place of single test at the end of the academic program namely external examinations. It helps the students who are not good in academics to show their talent in other fields such as arts, athletics, humanities, sports, music and also helps to encourage the students who have a thirst of knowledge. External Examinations are largely inappropriate for the knowledge society of the 21st century and it is the need for innovative problem solvers.

There are many draw backs of the external evaluation such as they only focus on scholastic learning by awarding marks and ability of child not evaluated. The external evaluation is got limited techniques of evaluation and do not identify learner's level of attainment. The external evaluation is restricted to pass/fail thus, causing frustration and humiliation in students. When it comes to the marking system, it has some demerits such as, unhealthy competition, unfair, unscientific. Moreover, it's over emphasis on scholastic achievement. In order to overcome all these drawbacks and weaknesses of external evaluation and marking system, the CBSE initiated CCE and grading system which is the boon for the students to improve their performance through regular intervals with multiple opportunities followed by 9 points (CCE Training Module by CBSE).

Literature review

Singh (2016)⁷ studied the influence of teaching and class related variables in attitude towards continuous and comprehensive evaluation (CCE). The study was conducted among teachers teaching in schools affiliated to the Central Board of Secondary Education of Sri Muktsar sahib district (Punjab).

Attitude of teachers towards continuous and comprehensive evaluation scale (2011) developed by Dr. Tirath Singh was used. Most of the categories under each grouping variable showed unfavorable attitude towards CCE. The teachers teaching up to 10th had higher degree of favorableness of attitude

towards CCE, whereas teachers teaching up to 12th class had unfavorable attitude. The teachers teaching small classes had favorable attitude whereas teachers teaching large classes had unfavorable attitude but the difference is not significant. Hence both had nearly neutral attitudes towards CCE. The teachers who choose teaching as their first preference had higher degree of favorableness of attitude towards CCE whereas teachers who did not opted teaching as first choice had unfavorable attitudes towards CCE.

Raina & Verma (2015)⁸ conducted a study on Continuous and Comprehensive evaluation- A study of Teachers Attitude. Data was collected from teachers (N=144) of CBSE affiliated schools of Jammu province. Statistical tools like Analysis of variance and t test were used to study the significance of difference between the various groups. The overall results indicate that there is a significant difference between the attitude of teachers towards continuous comprehensive evaluation in relation to the interaction of school type, qualification and locality.

Methodology of the study

Descriptive Survey method was followed in this study. The population of the study comprises students of CBSE affiliated secondary schools of East Delhi and North Delhi districts of Delhi. In this study, purposive sampling technique was used to draw the sample from the population. Two government and two private CBSE affiliated secondary schools were selected in order to draw the sample. The sample size contains 120 students from these secondary schools.

Tools and Techniques

Continuous and Comprehensive Evaluation Inventory (CCEI) was constructed by the researcher to measure the awareness of the students towards CCE system. The tool has 47 items related to general aspect, scholastic aspect, co-scholastic aspect, student's related indicators, school management's role, teacher's role and suggestions of students. Each statement has two response categories- Agree and Disagree. Semi-structured interview were accomplished to explore the struggle and inconvenience of students related to CCE.

Problems of students related to CCE

The following problems were identified from semi-structured interviews of students:

- **Inadequate information about CCE** – It was found from the interview and the following response that students are not much aware about CCE system, because no such helpful orientation is provided to them. It is found that Students are just following CCE without proper consideration and have many confusions regarding CCE programme. Begum and Farooqui (2008); O'Donovan (2003) found that awareness is one of the major factor to insure student's participation and the success of the evaluation scheme.
- **Grading system** – A large fraction of the students do not like grading system. They professed it as problem for them. They disagree for grading system. Students had their disagreement that grading system can't differentiate students securing 91 marks from those getting 99 marks. They supported marking system and oppose the grading system. They also want to see their evaluated answer sheets. Students had their opinion that marks should be provided along with grades in the report card so that they can evaluate themselves with a clear view. Grading system do not provide them a clear view towards their performance.
- **Co-Scholastic Assessment** – The students has criticized the co-scholastic assessment in terms of its implementation and biasness. They claimed that co-scholastic assessment was inappropriately organized and one teacher was not sufficient for assessing whole class. They experienced that few teachers were partial in assessing co-scholastic part. Many other researchers had also found that co-scholastic assessment was not properly organized.
- **Number of projects and assignments** – The majority of students feel that the load of assignments and projects in a semester is quite heavy. They have to dedicate extra times in nights to prepare these projects and assignments. They disagree to have sufficient time for co-curricular activities due to

large number of projects and assignments. Some students supposed that these works put a financial burden too. Students were in support of reducing the total number assignments and projects in a semester.

- **Remedial classes** – Diagnosis and remediation is the most important feature of CCE (NCF-2005). It was found that students were not feeling good with remedial classes. Because it is not done with right fortitude. Some students claimed that the remedial class is not much diverse from a regular class, except the name remedial. Students also claimed about inattention in solving individual problem in these classes. The students demonstrated strong disappointment with the timing and frequency of the remedial classes. They required a permanent schedule for these classes also.

Recommendation

On the basis of above study, following recommendations are prepared in order to resolve the identified issues:

- **Organizing Awareness programmes** – There is an essential need of awareness programmes for students about CCE system. These programmes should provide information regarding different schemes of CCE and importance of their role in CCE. In this context, a hand book on CCE for students should also be offered including systematic explanation of controversial issues.
- **Counselling programmes for students** – it was felt that there should be a regular counselling programme for students to know their problems related to CCE. Counselling can be individual as well as group to get students' feedback about CCE. It was observed that students were not in support of grading system although it was recommended by all the educational commission and committees. Therefore, counselling is an successful way to make their attitude positive in the direction of grading system. One should informed students about the advantages of grading system over marking system in a rational way.

- **Improve remedial teaching** – It was observed that students were not happy with the method of remedial teaching provided to them. Students stated that, individual problem of student should be given suitable importance in remedial class. Therefore, it is essential for every school to afford regular and effective remedial teaching. Remedial teaching should have a proper schedule and able to solve individual problems related to particular subject.

- **Co-scholastic assessment by a team of teachers** – It was found that the students acknowledged the subjectivity in assessment of co-scholastic aspects of students. They feel biased during the assessment. Therefore, it would be better to assess co-scholastic aspects of students by a team of teachers instead of a single teacher. There should be separate teams for each section or class and these teams should consist of the class teacher.

Conclusion

The result of the present study will be beneficial to policy planners, teachers, school administration, as well as researchers. The present study is not enough in terms of scope, sample size as well as methodology of the study. Therefore, a similar kind of research on large sample is advisable. There is a requirement to investigate the problems of students associated to CCE through case study approach.

A STUDY OF MATHEMATIC ANXIETY OF 10TH CLASS STUDENTS IN RELATION TO THEIR ACADEMIC ACHIEVEMENT

Ms. Jipsy Malhotra

Assistant Professor

Amity Institute of Education, Amity University, Noida

Ritika Tiwari

Student, AIE, Amity University

Abstract

Mathematics anxiety in students has become a concern for our Indian society. Evidence of students' poor attitude and high levels of anxiety toward mathematics is in abundant. The other notable consequences of mathematic anxiousness are the inability to do mathematics, the decline in mathematics achievement. Present study aim is to study of mathematic anxiety of 10th class students in relation to their academic achievement. For this study mathematics anxiety test was distributed to 220 students in which 110 boys and 110 girls were given mathematics anxiety test and instruction were given to them for completing the questionnaire and descriptive survey method was used. Results shows that that boys having high mathematic anxiety having mean value more than girls having high mathematics anxiety regarding academic achievement. Therefore it is concluded that boys having high mathematics anxiety have more academic achievement as compare to girls having high mathematics anxiety. It is concluded that boys having high mathematics anxiety have more academic achievement as compared to boys having low mathematics anxiety. It is also concluded that boys having low mathematics anxiety having mean value more than boys having low mathematics regarding academic achievement. There exists positive correlation between academic achievement and Mathematics anxiety of boys & girls of 10th class student, because the calculated (coefficient of correlation) is more than standard table value at both levels of significance. Therefore, it is concluded that high mathematics anxiety enhances the high academic achievement.

Keywords: Mathematics, Anxiety, Academic Achievement, Private Schools, Low, High, Boys, Girls

Introduction

Academic Achievement

The word “ACADEMIC AACHIEVEMENT” is becoming more and more competitive. Academic Achievement has become the key factor for personal progress. Parent's desire that their children climb the ladder of achievement to as high level as possible, this desire for a high level of achievement put lot of pressure on the students, teachers and in general education system itself. Achievement of students in our country is measured in terms of their performance in examination. There is not at all desirable permutation but here can't be any running away of this standard formula of achievement on the basis of achievement of school going boys/girls. He/she is bracketed either good/poor, intelligent/slow. Infact, it appears as if the whole system of education revolves round the academic achievement of student.

The importance of scholastic or academic achievement has raised several questions of education for education researcher. What different factors contribute towards academic achievement etc. The achievement of the child depends upon his conceptual learning and understanding in class. It further depends on numerous factors like child interest and motivation in the subject that they study, the devices and methods adopted by teacher in class family set-up and situational study habits of variable. It is pertinent to mention that economic, social and cultural factors make their contribution in academic achievement high or low for the students. The mental makeup, personality factors and surrounding do play an important role in shaping the performance of achievement of boys and girls. The variable may be highly anxious to achieve high performance but the factors examined above do have a direct or indirect effect on his performance at different stages of his education. Ability of variable to get experience and desire benefits from them is another factor reckon with. The experts in the field believe that intelligence can't be increased as it is inborn.

Mathematics Anxiety

Mathematics anxiety often leads to avoidance of math by those who experience. Often students who are anxious bored and fearful towards mathematics or who do not comprehend the importance of mathematics in professional and personal life are the one most likely to avoid the study of

mathematics. It cannot be stressed more forcefully, the fact that math is truly the gateway to engineering, scientific, and techno-logical fields. Mathematics anxiety in students has become a concern for our Indian society. Evidence of students' poor attitude and high levels of anxiety toward mathematics is in abundant. There-fore, it can be inferred that math anxiety greatly impacts math education and students career choice. Hence, the professional and economic gains that will result from changing math anxiety into math confidence cannot be overstated. Not only that the psychological boost that comes with math achievements is also regarded as important for students and others alike (National Research Council. 1989). Mathematics Anxiety Defined Math anxiety is more than a dislike towards math. Richardson and Suinn (1972) have defined mathematics anxiety, "is a feeling of tension and anxiety that interfere with the manipulation of mathematical problems in varied situations in ordinary as well as academic life. Miller (1981) concluded that math anxiety is directly related to perceptions of one's own mathematical skill in relation to skills in other subject areas.

Statement Of The Problem

The topic of the study is “A STUDY OF MATHEMATIC ANXIETY OF 10TH CLASS STUDENTS IN RELATION TO THEIR ACADEMIC ACHIEVEMENT”.

Objectives Of The Study

The objectives of the present study are as under:-

- i. To compare the academic achievement of boys and girls having high mathematic anxiety.
- ii. To compare the academic achievement of boys and girls having low mathematic anxiety.
- iii. To compare the academic achievement of boys having high and low mathematic anxiety.
- iv. To compare the academic achievement of girls having high and low mathematic anxiety.
- v. To study the relationship between academic achievement of mathematics anxiety of boys & girls of 10th class.

Hypotheses

The specific hypotheses are as under:-

- (i) There is no significant difference between the mean academic achievement of boys and girls having high mathematic anxiety.
- (ii) There is no significant difference between the mean academic achievement of boys and girls having low mathematic anxiety.
- (iii) There is no significant difference between the mean academic achievements of boys having high and low mathematic anxiety.
- (iv) There is no significant difference between the mean academic achievements of girls having high and low mathematic anxiety.
- (v) There is no significant difference between academic achievements & mathematics anxiety of boys and girls studying in 10th class.

Methodology

In this research descriptive survey method was used.

Population

All the 10th class students studying in private secondary schools of Sirsa district constitute the population.

Tools Used

For the present investigation, the investigator used the following tools:-

1. MATHEMATIC ANXIETY SCALE

Dr. (Mrs.) Sadia Mahmood Dr.

(Mrs.) Tahira Khatoon

2. ACADEMIC ACHIEVEMENT

In this study descriptive survey method was used. Student selected in the sample was subjected to the mathematic anxiety test and achievement was based on the marks obtained by the students in 10th Class.

Statistical Analysis

In this research, Mean, S.D. & „t“ Test was used

i. **Mean:** It is commonly taken as arithmetic average. It is computer by diving the sum of all the scores by the number of scores.

$$X = \frac{\sum x}{N}$$

M = Mean

$$\sum =$$

Summatio

$$n \quad N =$$

Number

ii. **Standard Deviation (SD):** It is used as a measure of the spread of scores in a distribution.

$$S.D. = \sqrt{\frac{\sum x^2}{N}}$$

iii. **'t' test :** - This test is applied to test the significance of the difference between two means. It comprises the computation of the ratio between two means. It comprises the computation of the ratio between experimental variance (observed difference between two sample means) and error variance (sampling error factor).

$$iv. t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2 - \sigma_2^2}{N_1 - N_2}}}$$

where,

M₁ = Mean of I

Group M₂ =

Mean of II
group

N_1 = Number of Cases of I
Sample N_2 = Number of
cases of II Sample

Analysis & Interpretation Of Data

Identification of 10th class students on the basis of mathematics Anxiety – For this study mathematics anxiety test was distributed to 220 students in which 110 boys and 110 girls were given mathematics anxiety test and instruction were given to them for completing the questionnaire. On the basis of this questionnaire the scoring was made & found the 25 boys and 25 girls having high mathematic anxiety and similarly 25 boys and 25 girls having low mathematic anxiety.

For this, the mathematics anxiety scale authored by Dr. (Mrs.) Sodiah Mahmood & Dr. (Mrs.) Tahira Khatoon was used. Now the academic achievement of identified high mathematics and low mathematics

25 Girls
25 boys

→ High Mathematics Anxiety

25 boys
25 Girls

→ Low Mathematics Anxiety

Academic achievement of 25 girls and 25 boys with high mathematics anxiety and low mathematics anxiety was studied and noted of 10th class students and further analysis and interpretation was made.

Norm for interpreting the level of anxiety in mathematics.

Sr. No.	Row Score	Grade	Anxiety Level in mathematics
1	43-49	B	High Anxiety
2	25-30	C	Low Anxiety

Hypothesis no.1

There is no significant difference between the academic achievement of boys and girls having high mathematic anxiety.

Table 1.1

Mean, S.D. & 't' value of academic achievement of 10th class students of Boys & Girls having high mathematic anxiety

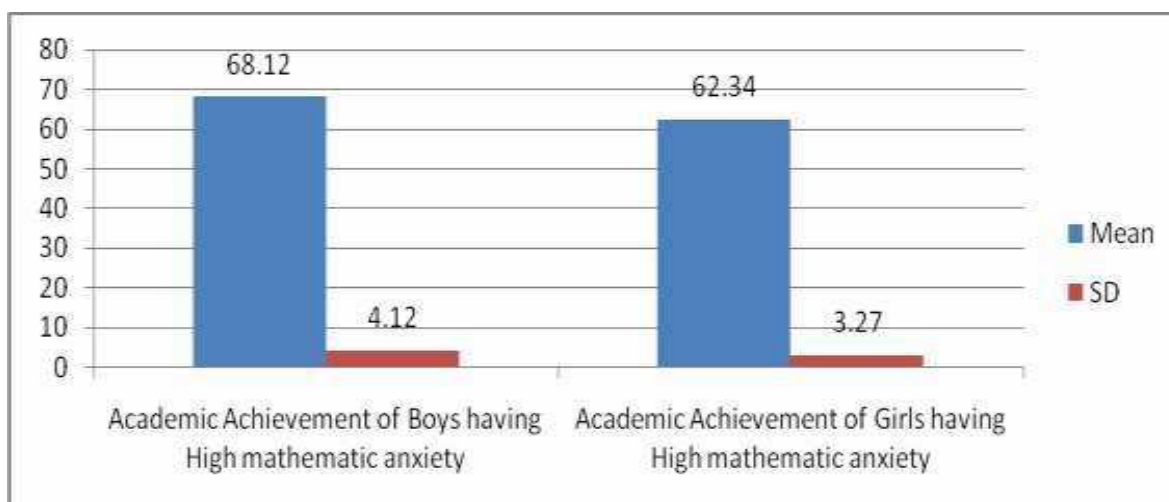
Sr. No.	Variable	N	M	S.D.	DF	't' Value	Level of Significance
1	Academic Achievement of Boys having High mathematic anxiety	25	68.12	4.12	48	5.50	Significant at both levels i.e. 0.05 & 0.01
2.	Academic Achievement of Girls having High mathematic anxiety	25	62.34	3.27			

df = 48, .05 = 2.01, .01 = 2.68

Interpretation: In this study the mean, S.D. of Academic achievement of boys & girls having high mathematics anxiety 68.12, 62.34 & 4.12, 3.27 respectively. The calculated 't' value is 5.50 which is more than standard table value at both levels of significance. It is analysed that hypothesis No. 1 is rejected. The mean value of Boys having high mathematics anxiety have more academic achievement as compare to girls having high mathematics anxiety.

It is finally concluded that the boys having high mathematics have more academic achievement as compare to girls having high mathematics anxiety.

Figure 1.1



Hypothesis No. 2 :

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN THE ACADEMIC ACHIEVEMENT OF BOYS AND GIRLS HAVING LOW MATHEMATIC ANXIETY.

Table 1.2

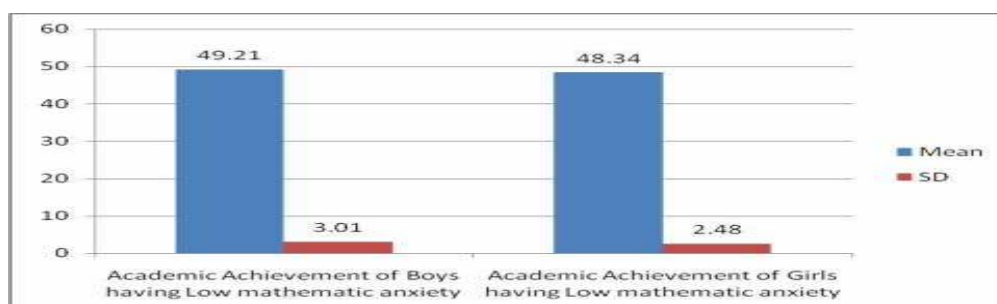
Mean, S.D. & 't' value of academic achievement of 10th class students of Boys & Girls having low mathematic anxiety.

Sr. No.	Variable	N	M	S.D.	DF	't' Value	Level of Significance
1	Academic Achievement of Boys having Low mathematic anxiety	25	48.34	2.48	48	1.11	Not Significant at both levels i.e. 0.05 & 0.01
2.	Academic Achievement of Girls having low mathematic anxiety	25	49.21	3.01			

df = 48, .05 = 2.01, .01 = 2.68

Interpretation: In this study the mean, S.D. of Academic achievement of boys & girls having low mathematics anxiety is 48.34, 49.21 & 2.48, 3.01 respectively. The calculated 't' value is which is less than standard table value at both level of significance. It is analysed that hypothesis No. 2 is accepted. The mean value of Boys having low mathematics anxiety with academic achievement as compare to girls having low mathematic anxiety have no any gap difference finally concluded that the boys having low mathematics anxiety with academic achievement as compare to girls having low mathematics anxiety having no significant difference.

Figure 1.2



Hypothesis No. 3:

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN THE ACADEMIC ACHIEVEMENTS OF BOYS HAVING LOW AND HIGH MATHEMATIC ANXIETY.

Table 1.3

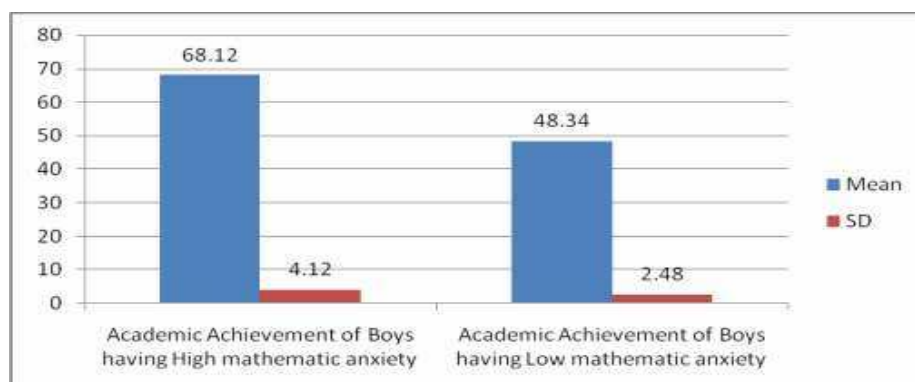
Mean, S.D. & 't' value of academic achievement of 10th class students of boys having low & high mathematics anxiety.

Sr. No.	Variable	N	M	S.D.	DF	't' Value	Level of Significance
1	Academic Achievement of Boys having high mathematic anxiety	25	68.12	4.12	48	20.58	Significant difference at both levels i.e. 0.05 & 0.01
2.	Academic Achievement of Boys having low mathematic anxiety	25	48.34	2.48			

Df = 48, .05 = 2.01, .01 = 2.68

Interpretation: In this study the mean, S.D. of Academic achievement of boys with low & high mathematics anxiety is 68.12, 48.34 & 4.12, 2.48 respectively. The calculated 't' value is 20.58 which is more than standard table value at both level of significance. It is analysed that hypothesis No. 3 is rejected. The mean value of Boys having high mathematics anxiety have more academic achievement as compare its boys having low Mathematics anxiety. It is finally concluded that the boys having high mathematics have more academic achievement as compare to boys having low mathematics anxiety.

Figure 1.3

**Hypothesis No. 4:**

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN THE ACADEMIC ACHIEVEMENTS OF GIRLS HAVING HIGH AND LOW MATHEMATIC ANXIETY.

Table 1.4

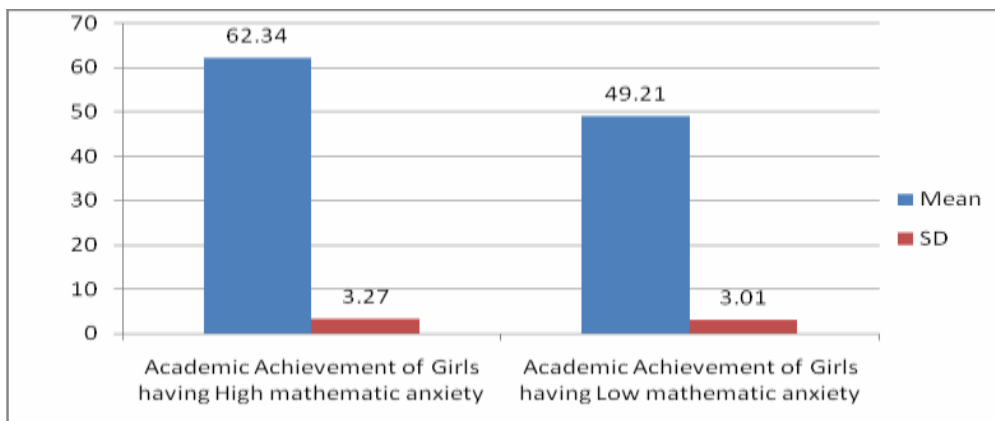
Mean, S.D. & 't' value of academic achievement of 10th class students of Girls having low & high mathematics anxiety.

Sr. No.	Variable	N	M	S.D.	DF	't' Value	Level of Significance
1	Academic Achievement of Girls having high mathematic anxiety	25	62.34	3.27	48	14.78	Significantat both levels i.e. .05 & .01
2.	Academic Achievement of Girls having low mathematic anxiety	25	49.21	3.01			

df = 48, .05 = 2.01, .01 = 2.68

Interpretation: In this study the mean, S.D. of Academic achievement of girls having low & high mathematics anxiety is 62.34, 49.21 & 3.27, 3.01 respectively. The calculated 't' value is 14.78 which is more than standard table value at both level of significance. It is analysed that hypothesis No. 4 is rejected. The mean value of Girls having high mathematics anxiety have more academic achievement as compare its girls having low Mathematics anxiety. It is finally concluded that the girls having high mathematics have more academic achievement as compare to girls having low mathematics anxiety.

Figure 1.4



Hypothesis No. 5:

THERE IS NO SIGNIFICANT RELATIONSHIP IF ACADEMIC ANXIETY AND MATHEMATICS ANXIETY OF BOYS AND GIRLS OF 10TH CLASS.

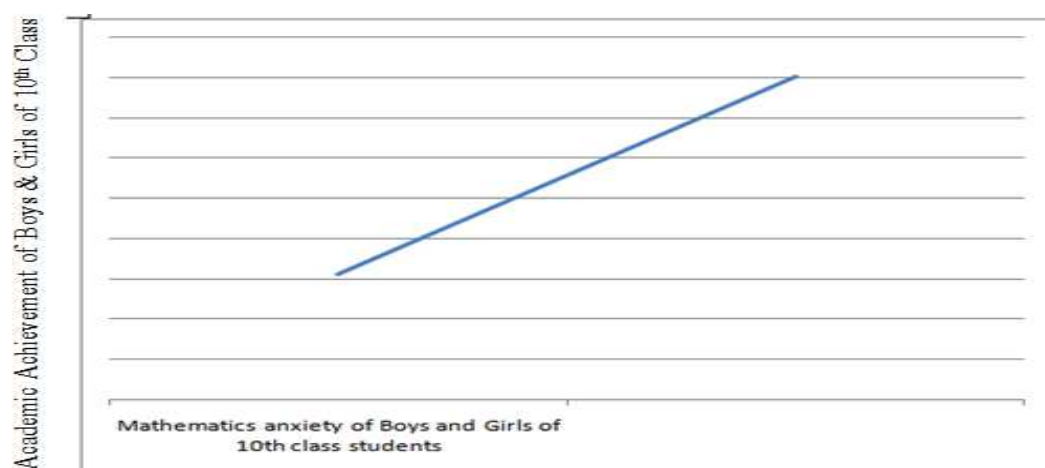
Table 1.5

Mean, coefficient of correlation of Boys and Girls having academic achievement & Mathematics anxiety.

Sr. No.	Variable	N	M	DF	't' Value	Level of Significance
1	Academic Achievement of Boys & girls of 10 th Class	50	57.03	98	.072	Significant at both levels i.e. .05 & .01
2.	Mathematics anxiety of Boys and Girls of 10 th class students	50	52.12			

df = 98 , .05 = 2.01, 0.1 = 2.68

Interpretation: In this study, the academic achievement of boys & girls was found to be 57.03 and the mathematics anxiety was 52.12 & the coefficient of correlation between academic achievement & mathematics anxiety was calculated by product movement correlation method & it was found to be 0.72, which indicates that there exists positive correlation between academic achievement & mathematics anxiety of boys & girls studying in 10th class.

Figure 1.5

Major Findings

- b. In Hypothesis No. 1 There exists significant difference between boys and girls having high mathematics anxiety regarding academic achievement. The calculated 't' value is more than standard table value at both level of significance, therefore hypothesis 1 is rejected. It is concluded that boys having high mathematic anxiety having mean value more than girls having high mathematics anxiety regarding academic achievement. Therefore it is concluded that boys having high mathematics anxiety have more academic achievement as compare to girls having high mathematics anxiety.
- c. In Hypothesis No. 2 There exists no significant difference between boys and girls having low mathematics anxiety regarding academic achievement. The calculated 't' value is less than standard table value at both level of significance, therefore hypothesis 2 is accepted. It is concluded that academic achievement of boys and girls having low mathematic have no significance difference with boys having low and girls having low mathematics anxiety. The mean value of academic achievement of boys having low mathematic anxiety is appropriate equal to girls having low mathematics anxiety.

- d. In Hypothesis No. 3 There exists significant difference between boys having high and low mathematics anxiety regarding academic achievement. The calculated 't' value is more than standard table value at both level of significance, therefore hypothesis 3 is rejected. It is concluded that boys having, low mathematics anxiety having mean value more than boys having low mathematics regarding academic achievement. Therefore, it is concluded that boys having high mathematics anxiety have more academic achievement as compare to boys having low mathematics anxiety.
- e. In Hypothesis No. 4 There exists significant difference between girls having high & low mathematics anxiety regarding academic achievement. The calculated 't' value is more than standard table value at both level of significance, therefore hypothesis 4 is rejected. It is concluded that academic achievement of girls having high mathematics anxiety have significance difference with girls having low mathematics anxiety. The mean value of academic achievement of girls having high mathematics anxiety is more than girls having low mathematic anxiety.
- f. In Hypothesis No. 5 There exists positive correlation between academic achievement and Mathematics anxiety of the boys & girls of 10th class student, because the calculated (coefficient of correlation) is more than standard table value at both levels of significance. Therefore, it is concluded that high mathematics anxiety enhances the high academic achievement.

Educational Implications

In this research the major finding state that the boys and girls with high mathematics anxiety have significant difference & boys have more academic achievement than girls with high mathematics anxiety. Similarly the boys and girls have significant difference in academic achievement with high & low mathematic anxiety. The boys & girls with low mathematic anxiety and boys and girls with high mathematics anxiety have more academic achievement

with compare to low mathematics anxiety have no significant difference regarding academic achievement. It is the natural phenomena that if you are more have more anxiety, you will have more academic achievement & similar results are found in this research. Therefore boys & girls should be motivated to create more anxiety in mathematics so that their academic achievement may be improved.

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MIXED-GRADE CLASSES: LEARNING IN MIXED-LEVEL INTEGRATED ENVIRONMENTS

Dr. Smriti Malhotra

Assistant Professor

Amity Institute of Education, Amity University, Noida

Dakshita Kant

Pre-service Teacher

Amity Institute of Education, Amity University, Noida

Abstract

Although there is universal agreement in academia that wrong attitude and outlook toward the mixed- grade classes exist, still analysis of the research reveals incoherent findings to the productivity of the either groups in terms of academic prowess. Consider the inconsistencies in research results, this research aims to address the question; Is there a major deviation in the standard of social studies achievement, social skill and confidence among mono-grade and mixed-grade pupils.

To elucidate the roles of mono-grade and mixed- grade classes on the aforementioned dependent variables, the participants (278 boys and girls) completed the following metrics:

- 1. Self- esteem*
- 2. Social skill*
- 3. Social studies achievement*

Review of the information revealed that:

- 1. There exists a major difference between the two groups with regard to social skills, and social studies achievement, mixed-graders emerging at the fore front.*
- 2. The level of self-esteem between the two different classes was at parity.*
- 3. Judging the metrics of self-esteem the mixed-grade students was better to the mono graders.*

Key Words: Social skills, Social Studies, Mono-Grade, Mixed-Grade, Ability.

Introduction

The Mixed-grade class system is referred to as composite/combination classes, double or split classes, merged-age classes and grouped classes i.e. a classroom in which combination of students from multiple grade levels are educated in one environment by one teacher for most of their curriculum. (Veenman, 1995)

The existence of mixed-age classrooms shows is either it being considered as an effective practice / method or perhaps required due to administrative limitations. As a practice it is believed that learners will benefit from the scale, scope and diversity that come with inherent mixed-age group. Another reason for such existence is more practical and more common place. There are just not enough students to justify separate classrooms or there are not enough resources available to the administration to operate and run separate classrooms. This is especially so in small rural schools or schools in isolation that can continue to impart learning even under constraints.

As per Vincent (1999, b) Educational Propositions greatly favour mixed-age education. Cognitive Development Theory holds the option that primary-level students need to interact with peers and their surroundings for an enhanced learning experience. Bruner (1960) and Vygotsky (1978b) also promote the idea that the cognitive development of young children results from a consistent effort to adapt to the environment. However, education in the mixed-grade classes appears to be more demanding than mono-grade classes (Russel, 1998) and educators' may find it easier to teach mono-grade classes. This is because they would feel the need of detailed knowledge of learning and a repertoire of teaching methods over and above those possessed by most mono-grade teachers. They must have the ability to design liberal, tangential learning experiences which are equally accessible to students functioning at varying capabilities. Such instructors would need to be adept at assessment, evaluation and documentation of progress by use of qualitative techniques.

Some studies report superiority in academic achievement of students in mixed-age classroom. Other studies are in favour of academic achievement in mono-age classrooms, and some of the

studies reveal no differences. At the same time, studies support the premise that there is a significant benefit in the affective domain for students enrolled in a mixed-age class. In mixed-age classrooms, the students exhibit more optimistic attitudes toward school, pragmatic leadership skills, self-esteem, increased prosocial and fewer aggressive behaviours, compared to students in traditional graded schools. (McClelland, 2004)

Anderson and Pavan (1993), reviewed 63 papers on mixed-age classes, and concluded that mixed-age environments compared to the mono-graded classes, perform similarly if not better. In a synopsis of over 400 reports, Johnson and Johnson (1994) quote proof that interaction and involvement among classmates results in increased academic achievement. This achievement is based on two aspects: first, according to Johnson (1994), the “family-like” environment, which subdues the chances of social isolation and motivates risk-taking that is essential for meaningful learning and second, according to Kinsey (2001), the dynamics of the elder children engaging in cross-age interaction during learning activities.

In some studies, like that of Veenman (1995), he stated from his findings that there were no significant differences between mixed-grade and single-grade classes in cognitive or affective achievement effects.

Further, some studies also suggested that mixed-grade classes have a negative effect on academic graded achievement. Masonn and Burns (1996), challenged Veenman’s conclusion claiming that Mixed-grade classes have a small negative effect on achievement. They asserted that the reason for such a difference could be attributed to the complexities of the tough teaching situation which could manifest itself in terms of more work and time management skills.

On the other hand, few studies suggest that there is a major benefit in the affective domain for students who are part of mixed-aged classroom. Students experience greater confidence, right attitude towards school, reduced disciplinary issues, and are adjusted emotionally and socially in a better manner. (Vincent, 1999b).

According to Michelson (1983), mixed-aged classrooms allow for the development of social skill sets as instructors encourage inter-age interaction among students through tutoring and shared discovery. Social competence develops elder children into nurturers for younger

children who in turn reap the benefit to observe and model the behaviours of their older classmates. At last, lesser children seemed to experience social isolation in mixed-age classroom context. (Katz, 1990; Macclcelan, 2004).

In fair conclusion, the mixed-grade model prima facie doesn't appear to have any negative outcomes in terms of the affective domain of the students. (Sargent, 2002).

Method

(a) **Sample:** The sample comprised of 260 children. Selected at random and split into two groups as described in the index below:

i) Mono-grade [(n=130, female n=49, male (n =81)],

ii) Mixed-grade classes [(n=130, female (n=55), male (n=75)]

(b) **Approach:** A methodology with three measures was used. The dependent variables were:

i) Social skills

ii) Self-esteem

iii) Social studies achievement

The other non-dependant variables were mono- grade and Mixed-grade classes.

(c) **Tools and References:** The tools and terms of reference were standardized among the children so the outcome led to reliable and near-actual predictions.

(d) **Metrics of Social Skill Sets:** This scale, developed by Keramati (2003) to measure the students social skills pattern.

The reliability index of this scale obtained for the current study was 0/79.

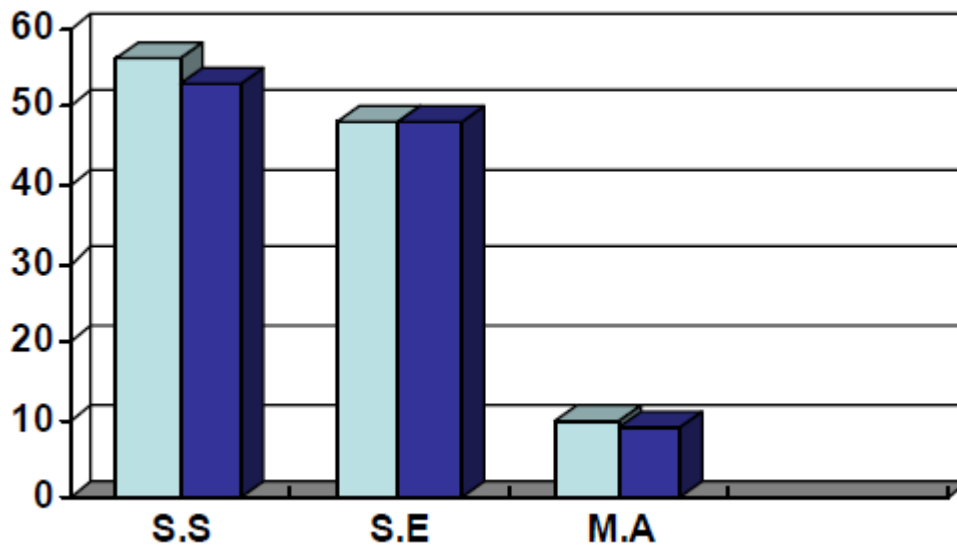
(e) *Self-Esteem/ConfidenceMetric*. This scale has a 60 question and included five subtests to measure: Scholastic, Family, Physical, Totality and Social Confidence.

This scale, obtained a reliability index of 0/87 in this study.

(f) *Sequence*: The instruments were administered to children of both the Mixed-grade as well as the Mono-grade classes. The information was then analysed by SPSS11.

Results and Findings

Means social skills, self-esteem and academic achievement of Mixed-grade and Mono-grade classes.



Graph. 1 S.S=Social Skills S.E=Self-Esteem M.A=Social studies

The results of the study in Table I, show that statistically, there were major differences between the Mixed-grade and Mono-grade class students in social skill sets.

TABLE I
INDEPENDENT SAMPLE TEST TO COMPARE THE TWO GROUPS
IN SOCIAL SKILLS

Class type	N	MEAN	S. D	df	t	p
S. G.	130	53/26	8/26	259	-2/89	0/004
M. G.	131	56/00	7/29			

The subsequent analysis in Table II, demonstrated negligible difference in statistically between the Mixed-grade and Mono-grade students in terms of self- esteem and confidence.

TABLE II
INDEPENDENT SAMPLE TEST TO COMPARE THE TWO GROUPS IN SELF-ESTEEM

Class type	N	MEAN	S. D.	df	t	p
S. G.	13	48/95	10/11	259	594	0/553
M. G.	13	48/09	12/96			
	0					
	1					

The list tabulated under Table III, suggests statistically significant differences between the two groups in subtest scholastic self- esteem.

TABLE III
INDEPENDENT SAMPLE TEST TO COMPARE THE SCHOLASTIC SELF-ESTEEM

Class type	N	MEAN	S. D	df	t	p
S. G.	130	10/96	2/48	259	-5/12	0/000
S. G.	131	12/48	2/32			

The list tabulated under Table IV, suggests that there were poignant differences between the Mixed-grade and Mono-grade class students in academic prowess.

TABLE IV
INDEPENDENT SAMPLE TEST TO COMPARE THE TWO GROUPS IN MATH
ACHIEVEMENT

Class type	N	MEAN	S. D.	df	t	p
S. G.	130	9/29	3/70	259		-3/95
M. G.	131	10/97	3/16	0/00		

In general, the observations of the study reveal considerable difference between the students in terms of social skills and academic prowess, however they match with same degree of self-esteem with enhanced scores in social studies on behalf of Mixed-grade students. $t(1/96) = -3/95, p = 0/$

Findings and analysis reveal:

- i. The social skills level of Mixed-grade students was enhanced and of higher level than that of the Mono-grade students.
- ii. The levels of Mixed-grade and Mono-grade students were almost the same.
- iii. Grade students were enhanced than Mono-grade students.

Educational Implications

Results derived from this research indicate, as predicted, that there is significant gain that may be obtained from the impact of mixed-grade classes on children's social skills. Overwhelming reports rarely show lower social skills for students in mixed-age classroom viz a viz children in mono-grade classes. The students in mixed-age group are able to watch, model and learn social skills from their peer group. The kind of ambience that is generated has due impact. Children in the mixed-grade classes have the ability to take initiative and coaching roles, these relations akin to a family lead the establishment of the tasks of mentoring and commitment on both-the one teaching and the one being taught. Analysis show that social skills are evolved at school, and this is in line with the McClelland(2001) and Michelsonn (1993) claim that social

skills are acquired behaviour and are learnt from watching, inculcating via practice and feedback. So, mixed-age education has a tremendous positive weightage on a child's social skill set.

Further, the result indicated that there is not a major deviation between mono-grade and mixed-grade students in indices of self-esteem. However, mixed-grade classes lead to growth in self-esteem, because of coordinated learning, collaborative assignments and heterogeneous grouping but, it is quotable that appropriate class environment is not unique reason for building self-esteem. The mixed-grade classes seem to be effective in building scholastic confidence because of coordinated learning, grouping and tracking system, belongingness to a group, sense of community, appreciative interaction between teacher and students; as is shown in consonance with the findings of this study.

Finally, the results reflect that the mixed-grade classes' students are better off in terms of academic prowess than others in mono-grade classes, due to the unique experience, which enhances their ability to experience cognitive growth in the mixed-grade classroom.

Active learning, familial ambience, meaning driven learning, interaction between younger and elder learners, with varied educational experiences, observation of; and modelling of the behaviour provides a real environment in the class that leads to the students greater academic achievement, cognitive and non-cognitive growth among the mixed-age students. The result corroborates the statement by Anderson and Pavan (1993), Johnson and Johnson (1994), McClellan (2004) and many other studies that show enhanced academic prowess in mixed-age classes.

To sum up, the present analysis shows that mixed-grade students have enhanced levels of social skills, and academic prowess compared to others in mono-grade classes. It is thus necessary to study and pursue effective norms in our educational system goals; especially in terms of enhancing social skill, self-esteem and an effectively driven learning environment. Educators can derive benefits of mixed-age grouping class's environment to attain these goals.

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Mid-day Meal Program and its Nutritional effect on Primary School Child
पूर्व प्राथमिक स्तर पर संचालित भोजन योजनाओं का बालकों की पोषक स्थिति पर पढ़ने
वाले प्रभावों का समीक्षात्मक अध्ययन

Dr. Rajshree

Post Doctoral fellow UGC
Faculty of Education
DEI Deemed University
Dayalbagh Agra

प्रस्तावना –

प्राचीन काल में शिक्षा के महत्व को दर्शाते हुए कहा गया है कि **ज्ञानं तृतीय मनुजस्य नेत्रं समस्त तत्त्वार्थ विलोकदक्षमः** अर्थात् जो दो नेत्रों द्वारा देखने से अपूर्ण रह जाता है, वह विद्या रूपी तृतीय नेत्र से देखा जा सकता है। संविधान लागू होने के साथ 1951 से देश की विकासात्मक योजनाये में बालकों के विकास एवं कल्याण पर विशेष बल दिया गया है। स्वतंत्रता के समय विद्यालय पूर्व शिक्षा के कार्यक्रम कतिपय स्वयंसेवी संस्थाओं द्वारा संचालित किये जाते थे। 1960 से इन संस्थाओं को सरकार के द्वारा बालकों के विकास, पोषण एवं संरक्षण सम्बन्धी जिम्मेदारियों प्रमुखता से दी गई, परंतु 1970 में शिशु कल्याण एवं बाल विकास के क्षेत्र को बढाकर बालकों के स्वास्थ्य, शिक्षा, पोषण आदि से सम्बद्ध कर दिया गया।

बालकों के विकास एवं कल्याण की राष्ट्रीय नीति 1974 में लागू की गई एवं 1975 में इसे एकीकृत बाल विकास योजना नाम दिया गया। इसके अन्तर्गत 0 से 8 वर्ष तक के बालकों को सम्मिलित किया गया, जिसमें 0 से 6 एवं 6 से 8 के दो समूह विभक्त किये गये। 0 से 6 वर्ष के बालकों को पुनः दो समूहों में विभक्त किया गया, जिसमें 0 से 3 वर्ष के बालकों की शिक्षा एवं पोषक की जिम्मेदारी आंगनबाडियों को तथा 3 से 6 वर्ष के बालकों की पूर्व औपचारिक शिक्षा एवं पोषण हेतु शालेय प्राथमिक विद्यालयों को अधिकृत किया गया।

पूर्व विद्यालयी बालकों के लिये *इंडियन काउन्सिल आफ मेडिकल रिसर्च (1999)* द्वारा निम्नानुसार भोज्य पदार्थों की मात्रा निर्धारित की गई, ताकि उन्हें आवश्यक पोषण प्राप्त हो सके।

तालिका-पूर्व विद्यालयी बालकों हेतु संतुलित आहार की प्रस्तावित मात्रा

भोज्य पदार्थ	1 से 3 वर्ष		4 से 6 वर्ष	
	शाकाहारी (ग्राम)	मांसाहारी (ग्राम)	शाकाहारी (ग्राम)	मांसाहारी (ग्राम)
अनाज	100-150	100-150	100-150	100-150
छोले	30-50	20-40	40-60	30-50
हरी पत्ते की सब्जी	50	50	75	75
अन्य सब्जी	30	30	30-50	30-50
फल	100	100	100	100
दूध	600-1000	400-700	600-1000	400-700
अंडा	—	30	—	30
मांस व मछली	—	30-40	—	30-50
वसा व तेल	20	20	20	25
चीनी व गुड	30	30	40	40

बालकों के सर्वांगीण विकास एवं पोषण हेतु भारत सरकार द्वारा मध्याह्न भोजन योजना दि० 15.08.1995 से प्रारंभ की गई, जो समाज के निम्न वर्ग के विद्यालय जाने वाले बालकों के पोषण प्रदान करने के दृष्टिगत अत्यंत महत्वपूर्ण योजना है। इसके साथ विद्यालयों में बालकों की उपस्थिति की दर में वृद्धि लाने के लिये भी कई क्षेत्रों में यह कारगर रही है।

इस योजना को आंगनबाड़ी एवं प्राथमिक विद्यालय के स्तर पर विभिन्न स्तरों पर तुलनात्मक अध्ययन हेतु निम्न उद्देश्य निर्धारित किये गये।

अध्ययन के उद्देश्य –

1. आई सी डी एस के अन्तर्गत क्रियान्वित भोजन योजना एवं मध्यान्ह भोजन योजना का विद्यार्थियों के स्वास्थ्य एवं शैक्षणिक उपलब्धि पर पढ़ने वाले प्रभाव का अध्ययन करना।
2. आई सी डी एस के अन्तर्गत क्रियान्वित भोजन योजना एवं मध्यान्ह भोजन योजना का नामांकन एवं शाला त्यागी बच्चों पर पढ़ने वाले प्रभाव का अध्ययन करना।
3. आई सी डी एस के अन्तर्गत क्रियान्वित भोजन योजना एवं मध्यान्ह भोजन योजना की आंगनबाड़ी एवं प्राथमिक विद्यालयों में मिलने वाले भोजन की गुणवत्ता तथा छात्रों के पोषण स्तर का अध्ययन करना।
4. आंगनबाड़ी एवं प्राथमिक विद्यालयों में विद्यार्थियों को गुणवत्ता युक्त भोजन मिलने में आ रही समस्याओं कि कारणों का पता लगाना।
निर्धारित उद्देश्यों के सापेक्ष निम्नांकित परिकल्पना परिकल्पित की गई।

शोध अध्ययन की परिकल्पना –

1. नगरीय एवं ग्रामीण स्तर पर आंगनबाड़ी में चल रही भोजन योजना से बालकों की पोषक स्थिति में कोई सार्थक अंतर नहीं पाया जाता।
2. नगरीय एवं ग्रामीण स्तर पर प्राथमिक विद्यालयों की मध्यान्ह भोजन योजना से आंगनबाड़ी में चल रही भोजन योजना से बालकों की पोषक स्थिति में कोई सार्थक अंतर नहीं पाया जाता।
3. नगरीय एवं ग्रामीण स्तर पर आंगनबाड़ी व प्राथमिक विद्यालयों में प्रदाय भोजन की गुणवत्ता में कोई सार्थक अंतर नहीं पाया जाता।
4. नगरीय एवं ग्रामीण स्तर पर आंगनबाड़ी व प्राथमिक विद्यालयों में मध्यान्ह भोजन योजना का छात्रों के नामांकन एवं ठहराव में कोई सार्थक अंतर नहीं पाया जाता।

शोध प्रक्रिया

शोध अध्ययन विधि– शोध अध्ययन के प्रतिरूप उद्देश्यों की पूर्ति हेतु वर्णनात्मक सर्वेक्षण एवं साक्षात्कार विधि का प्रयोग किया गया है।

न्यादर्श चयन– शोध अध्ययन के उद्देश्यों के आधार पर धौलपुर नगर के प्रत्येक ब्लॉक के आंगनबाड़ी एवं प्राथमिक विद्यालयों में से न्यादर्श चयन की उद्देश्यात्मक न्यादर्श चयन विधि द्वारा 100 शिक्षक 200 पालकों एवं 1000 बालकों का अंतिम न्यादर्श के रूप में का चयन किया गया है। न्यादर्श चयन प्रक्रिया निम्न प्रकार है–

शोध उपकरण

प्रदत्तों के संकलन हेतु स्वनिर्मित साक्षात्कार प्रश्नावली (छात्र प्रश्नावली पत्रक, छात्र साक्षात्कार पत्रक, पालक प्रश्नावली पत्रक एवं शिक्षक प्रश्नावली पत्रक) का प्रयोग किया गया।

सांख्यिकीय तकनीकी

प्रदत्तों के विश्लेषण हेतु काई वर्ग परीक्षण का प्रयोग किया गया।

प्रदत्तों का विश्लेषण एवं निष्कर्ष-

प्रदत्तों के विश्लेषण एवं संश्लेषण द्वारा प्राप्त उपलब्धियों एवं सूचनाओं को **परिकल्पना** के आधार पर विवेचित किया गया है।

तालिका-नगरीय व ग्रामीण आंगनबाड़ियों तथा प्राथमिक विद्यालय के बालकों को प्रदाय मध्यान्ह भोजन के सन्दर्भ में विश्लेषण

अध्ययन के तत्व	अध्ययन के क्षेत्र	नगरीय			ग्रामीण			काई वर्ग मान
		हाँ	नहीं	ज्ञात नहीं	हाँ	नहीं	ज्ञात नहीं	
बालकों की पोषक स्थिति	आंगनबाड़ी	124	90	36	163	55	32	13.98
	प्राथमिक विद्यालय	129	60	61	147	69	34	9.47
प्रदाय भोजन की गुणवत्ता	आंगनबाड़ी	144	69	37	168	68	14	12.22
	प्राथमिक विद्यालय	116	80	54	148	76	26	13.78
नामांकन एवं ठहराव संख्या	आंगनबाड़ी	153	69	28	147	73	30	0.3
	प्राथमिक विद्यालय	123	80	47	141	63	46	3.256

परिकल्पना 1 – नगरीय एवं ग्रामीण स्तर पर आंगनबाड़ी में चल रही भोजन योजना से बालकों की पोषक स्थिति में कोई सार्थक अंतर नहीं पाया जाता की गणना द्वारा χ^2 परीक्षण का मान 13.98 है जो कि स्वतंत्रता के अंश $df = 2$ के लिए तालिका में 0.05 व 0.01 पर दिए गए χ^2 के मान क्रमशः 5.991 तथा 9.210 दोनों ही विश्वास स्तरों से अधिक है। अतः उक्त परिकल्पना दोनो सार्थक स्तर पर अस्वीकृत होती है।

अतः नगरीय एवं ग्रामीण स्तर पर आंगनबाड़ी में चल रही भोजन योजना से बालकों की पोषक स्थिति में सार्थक अंतर है।

परिकल्पना 2 – गणना द्वारा χ^2 परीक्षण का मान 9.47 है जो कि स्वतंत्रता के अंश $df = 2$ के लिए तालिका में 0.05 व 0.01 पर दिए गए χ^2 के मान क्रमशः 5.991 तथा 9.210 दोनों ही विश्वास स्तरों से अधिक है। अतः नगरीय एवं ग्रामीण स्तर पर प्राथमिक विद्यालयों की मध्यान्ह भोजन योजना से आंगनबाड़ी में चल रही भोजन योजना से बालकों की पोषक स्थिति में कोई सार्थक अंतर नहीं पाया जाता अस्वीकृत होती है।

अतः नगरीय एवं ग्रामीण स्तर पर प्राथमिक विद्यालयों की मध्यान्ह भोजन योजना से आंगनबाड़ी में चल रही भोजन योजना से बालकों की पोषक स्थिति में सार्थक अंतर है।

परिकल्पना 3 – तालिका मानो से स्पष्ट है कि परिकल्पना क्र. 3 नगरीय एवं ग्रामीण स्तर पर आंगनबाड़ी व प्राथमिक विद्यालयों में प्रदाय भोजन की गुणवत्ता में कोई सार्थक अंतर नहीं पाया जाता है अस्वीकृत होती है।

अतः नगरीय एवं ग्रामीण स्तर पर आंगनबाड़ी में प्रदाय भोजन की गुणवत्ता में सार्थक अंतर होता है।

परिकल्पना 4 – गणना द्वारा χ^2 परीक्षण का मान 3.26 है जो कि स्वतंत्रता के अंश $df = 2$ के लिए तालिका में 0.05 व 0.01 पर दिए गए χ^2 के मान क्रमशः 5.991 तथा 9.210 दोनों ही विश्वास स्तरों से कम है। अतः नगरीय एवं ग्रामीण स्तर पर आंगनबाड़ी व प्राथमिक

विद्यालयों में मध्याह्न भोजन योजना का छात्रों के नामांकन एवं ठहराव में कोई सार्थक अंतर नहीं पाया जाता है, स्वीकृत होती है।

नगरीय एवं ग्रामीण आंगनबाड़ी व प्राथमिक विद्यालयों के शिक्षकों एवं पालकों से प्राप्त उत्तरों के आधार पर परिणाम:-

तालिका-मध्याह्न भोजन के सन्दर्भ में साक्षात्कार द्वारा प्राप्त मध्यमानों का विश्लेषण

क्रम संख्या	पद	क्षेत्र	आंगनबाड़ी		प्राथमिक विद्यालय	
			हाँ %	नहीं %	हाँ %	नहीं %
1	भर पेट भोजन प्रदाय	ग्रामीण	76	24	60	24
		नगरीय	84	16	72	08
2	भोजन मीनू के अनुसार	ग्रामीण	76	24	64	36
		नगरीय	100	00	100	00
3	भोजन केंद्रीय स्वसहायता द्वारा	ग्रामीण	100	0	100	0
		नगरीय	100	0	100	0
4	शिक्षकों द्वारा भोजन ग्रहण	ग्रामीण	72	28	52	32
		नगरीय	24	76	72	28
5	भोजन प्राप्ति द्वारा नामांकन संख्या वृद्धि	ग्रामीण	76	12	36	44
		नगरीय	52	7	32	68
6	भोजन प्राप्ति द्वारा बालकों में ठहराव	ग्रामीण	84	16	64	28
		नगरीय	84	16	56	28
7	भोजन को लेकर बालकों की शिकायत	ग्रामीण	36	64	16	84
		नगरीय	8	84	44	48
8	भोजन का नियमित परीक्षण	ग्रामीण	28	72	76	6
		नगरीय	76	74	100	0
9	भोजन की गुणवत्ता	ग्रामीण	44	42	58	22
		नगरीय	36	56	78	11
10	रसोई घर की सफाई	ग्रामीण	62	26	59	32
		नगरीय	100	00	100	00
11	भोजन प्राप्ति द्वारा पढाई के स्तर के स्तर	ग्रामीण	56	32	64	24
		नगरीय	52	00	54	38
12	बालकों के पोषक स्तर पर प्रभाव	ग्रामीण	76	16	68	24
		नगरीय	64	28	32	36
13	बालकों के व्यवहार पर प्रभाव	ग्रामीण	48	40	48	40
		नगरीय	44	20	44	36

- नगरीय एवं ग्रामीण आंगनबाड़ी व प्राथमिक विद्यालयों के शिक्षकों एवं पालकों के साक्षात्कार द्वारा यह ज्ञात हुआ कि ग्रामीण आंगनवाड़ी तथा प्राथमिक विद्यालय की अपेक्षा शहरी क्षेत्र में बालकों को भर पेट भोजन देने वाले तथ्य की अधिक प्रतिशतता से पुष्टि की गयी।
- बालकों को भोजन मीनू के अनुसार प्रदान किया जाता है इस तथ्य के विषय में शहरी क्षेत्र के सभी शिक्षकों एवं पालकों ने 100 स्वीकृति प्रदान की जबकि ग्रामीण क्षेत्रों में मई आंगनवाड़ी 76 तथा प्राथमिक विद्यालय से 64 धनात्मक उत्तर प्राप्त हुये ।
- शासन की भोजन योजना से परिचित होने के सम्बन्ध में आंगनबाड़ी व प्राथमिक विद्यालयों में शहरी एवं ग्रामीण पालकों ने क्रमशः 78 प्रतिशत तथा 60 प्रतिशत ने स्वीकरोक्ति प्रदान की तथा सरकार द्वारा भोजन प्रदान होने के विषय में जानकारी की शत प्रतिशत पुष्टि की।
- बालकों को प्रदान किये जाने से पूर्व वही भोजन शिक्षकों द्वारा ग्रहण किया जाता है के विषय में ग्रामीण तथा शहरी दोनों ही क्षेत्रों के पालकों में से क्रमशः 72 तथा 52 प्रतिशत ने हाँ में उत्तर दिया।
- बालक के विद्यालय जाने के सम्बन्ध में प्राप्त तथ्यों से ज्ञात होता है कि शहरी क्षेत्र के आंगनबाड़ी व प्राथमिक विद्यालयों में 76 व 36 प्रतिशत तथा ग्रामीण क्षेत्र के 52 व 36 प्रतिशत बालक शिक्षण केन्द्रों में जाने को आंकाक्षित हैं।
- ग्रामीण तथा नगरीय आंगनबाड़ी एवं प्राथमिक विद्यालयों में मध्याह्न भोजन प्रदान किये जाने से बालकों का शालाओं में क्रमशः 84 व 80 तथा 64 व 56 ठहराव परलक्षित हुआ।
- प्रदाय भोजन से सम्बंधित शिकायतें ग्रामीण शालाओं में तथा नगरीय प्राथमिक विद्यालयों में अधिक पायी गयी।
- भोजन के नियमित परीक्षण के विषय में आंगनबाड़ी व प्राथमिक विद्यालयों में 76 एवं 100 प्रतिशत नगरीय व 28 एवं 76 प्रतिशत ग्रामीण पालकों ने सहमति प्रदान की।
- भोजन की गुणवत्ता नगरीय पालकों ने 26 प्रति0 व ग्रामीण पालकों ने 18 उत्तम बताई गई, जबकि 58 प्रति0 शहरी पालकों व 78 प्रति0 ग्रामीण पालकों ने सामान्य बताई।
- रसोई घर की सफाई के सम्बन्ध में 100 प्रति0 नगरीय पालकों एवं 62 प्रति0 ग्रामीण पालकों ने उत्तम व्यवस्था को सहमति प्रदान की।
- भोजन प्राप्ति द्वारा पढाई के स्तर के स्तर में वृद्धि के विषय में नगरीय एवं ग्रामीण पालको ने क्रमशः 56 व 24 प्रति0 सकारात्मक बताया।
- मध्याह्न भोजन प्राप्ति द्वारा बालकों के पोषण स्तर सुधार के विषय में ग्रामीण एवं नगरीय दोनों क्षेत्रों के पालक पूर्णतया संतुष्ट पाये गये तथा बालकों का व्यवहार अप्रभावित रहा।

- शत प्रतिशत ग्रामीण एवं नगरीय पालकों द्वारा यह पुष्टि की गई कि शालाओं एवं प्राथमिक विद्यालय में स्वास्थ्य परीक्षण व निशुल्क औषधि वितरण किया जाता है।

निष्कर्ष-

बालकों के समग्र विकास के लिये शासन द्वारा आजादी के बाद से ही कई स्तरों पर प्रयास किये जाते रहे हैं। आई सी डी एस के तहत आंगनबाडी भोजन योजना तथा विद्यालयों में मध्याह्न भोजन योजना प्रमुख हैं। शोध में पाया गया कि ग्रामीण व शहरी दोनों क्षेत्रों में भोजन प्रदाय की विधि व प्रक्रिया में काफी अंतर है। नगरीय आंगनबाडियों तथा प्राथमिक विद्यालयों में भोजन केन्द्रीयकृत रसोईघरों से आता है, जबकि ग्रामीण आंगनबाडियों तथा प्राथमिक विद्यालयों में भोजन रसोईघरों में स्वयं सहायता समूहों द्वारा बनावाया जाता है। केन्द्रीयकृत रसोईघरों में एक साथ 60 से 70 हजार बालकों का भोजन बनाया जाता है। भोजन निर्माण की प्रक्रिया प्रातः 3.00 बजे आरंभ की जाती है एवं अपराहन में भोजन प्लास्टिक के कैनो में भरकर विद्यालयों में पहुँचता है, जो ठंडा हो जाता है। लंबे समय तक बंद रहने के कारण इसकी पोष्टिकता पर भी असर पड़ता है, जिससे बालक भोजन पूर्ण रूचि के साथ गृहण नहीं करते हैं।

इसके विपरीत ग्रामीण क्षेत्रों में भोजन चूल्हे या गैस पर आवश्यकतानुसार मध्यावकाश में तैयार किया जाता है, जो बालकों को प्रदान करते समय ताजा, गर्म एवं पोष्टिक होता है। जिसे बालको द्वारा रूचिपूर्वक खाया जाता है।

आंगनबाडियों व शालाओं में जिन अभिभावकों के बालक अध्ययन के लिये आते हैं, उनमें से 80 प्रतिशत मजदूर होते हैं, जिन्हें दो वक्त की रोजी रोटी के कठोर शारीरिक श्रम करना होता है। आंगनबाडियों व शालाओं में पढाई के साथ साथ सप्ताह के छः दिन मीनू के अनुसार बदल बदल कर भोजन प्राप्त होता है, जिससे बालकों को आवश्यक पोषण प्राप्त होता है। भोजन प्राप्ति के कारण आंगनबाडियों व शालाओं में बालकों की संख्या में वृद्धि हुई है। जो योजना तथा आंगनबाडियों व शालाओं की स्थापना के उद्देश्यों को सार्थकता प्रदान करता है।

अध्ययन का महत्व

आई सी डी एस तथा मध्याह्न भोजन जैसी योजनायें प्राथमिक स्तर पर शारीरिक स्वास्थ्य, कुपोषण उन्मूलन, शैक्षणिक उपलब्धि स्तर बढ़ाने, नामांकन बढ़ाने आदि के लिये केन्द्र एवं राज्य सरकारों द्वारा लागू की गई हैं, जिनके सकारात्मक परिणाम भी प्राप्त हो रहे हैं।

मानव समाज की आवश्यकतायें असीमित एवं अनंत हैं, शिक्षा की आवश्यकता के साथ पौष्टिक भोजन की आवश्यकता मुख्य है, क्योंकि स्वस्थ शरीर में स्वस्थ मन निवास करता है। शून्य से 14 वर्ष के बालकों के शारीरिक विकास एवं मानसिक विकास समग्र विकास को

दृष्टिगत रखते हुये ही शासन के द्वारा आई सी डी एस तथा मध्यान्ह भोजन योजनायें चलाई गई हैं। आई सी डी एस के तहत 0 से 6 वर्ष तक के बालक बालिकाओं हेतु पोषण आहार, भोजन, स्वास्थ्य परीक्षण तथा प्रारंभिक शिक्षा की व्यवस्था आंगनबाडियों में की गई है। वहीं मध्यान्ह भोजन कार्यक्रम के अन्तर्गत प्राथमिक शालाओं के विद्यार्थियों को शैक्षणिक दिवसों में शाला अवधि के दौरान दिया जाता है। इन तथ्यों के दृष्टिगत अध्ययन के महत्वपूर्ण कारक निम्न हैं:-

- स्वस्थ शरीर में स्वस्थ मन निवास करता है, अतः सबके लिये शिक्षा का लक्ष्य प्राप्त करने के साथ साथ शारीरिक पुष्टता हेतु पौष्टिक भोजन अत्यन्त आवश्यक है।
- भारत की अधिकांश ग्रामीण एवं कुछ शहरी आबादी का जीवन स्तर अत्यंत निम्नस्तरीय है। ऐसे क्षेत्रों में शासन की आधारभूत योजनाओं को आम जन तक सूचारु रूप से पहुँचाकर उन्हें लाभान्वित करने का कार्य आंगनबाडियों द्वारा किया जाता है।
- भारत जैसे विकासशील देश में लाखों की संख्या में बच्चे उचित पोषण प्राप्त न हो पाने के कारण कुपोषण के शिकार हो जाते हैं। आंगनबाडियों के माध्यम से एएनएम स्वास्थ्य कार्यकर्ताओं द्वारा बच्चों का नियमित स्वास्थ्य परीक्षण कर उपचार प्रदान किया जाता है।
- मध्यान्ह भोजन योजना का मुख्य उद्देश्य प्राथमिक विद्यालयों के बालकों के नामांकन में वृद्धि, स्वास्थ्य रक्षण तथा पोषण स्तर में सुधार करना है।
- दोनों ही योजनायें जातिगत भेदभाव, लिंगभेद तथा वर्गों के मध्य की असमानताओं को दूर करने में सहयोगी है। साथ ही लंबे समय तक शाला में रहने के कारण विद्यार्थियों को लगने वाली भूख को भी शांत करती है।

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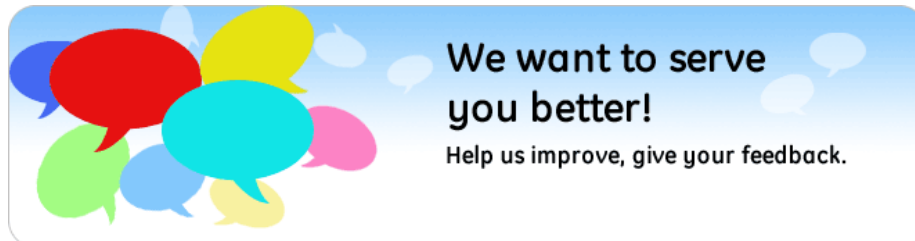


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