

## A Comparative Analysis of Stateboard and CBSE for the Modern Days

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### ABSTRACT

The epidemic has caused a significant shift in the way traditional education delivers high school courses. Changes in alternative remote teaching –a temporary transfer of instructional delivery to an alternate remote delivery mode owing to crisis circumstances– occurs quickly and unplanned, like previous activities from face-to-face instruction to mixed, virtual, or reversed classroom. This study examines the influence of gender, location, internet access, family analysis, and Economic disturbance due to CoViD -19 on the academic achievement of high schools during the pandemic of 2021-22. Mann Whitney U Test quantitative data on academic achievement conducted for 360 ninth grade students from five CBSE schools and five matriculation schools in Tirupur district, Tamilnadu. The findings suggest that during pandemic 2021-22, there is a considerable difference in academic achievement between males and females, pupils having high speed and low speed internet access. On the other hand, there are many features which assess the performance of the school, teachers and students achievements which includes infrastructure, teacher's capabilities and student's achievements in competitive exams like NEET, JEE. It is understood that the CBSE school performance is much better than any other form of education system especially during the pandemic.

**KEYWORD:** Academic, CBSE, Analysis

### I. INTRODUCTION

School is a period filled with both problems and possibilities. The school experience is often seen as providing several possibilities for students to develop their skills, knowledge, attitudes, values, beliefs, identity, and character characteristics in psychologically positive ways by Iglesias-Pradas et al.(2021). It is a period in which young people are enthralled by the prospect of trying out new and radical behaviors and activities that may be diametrically opposed to their past interests, but which may serve as a wake-up call for them to recognize their innate abilities Limniou et al. (2021) and strengths Fichten et al. (2021). As a result, at the school level, the many stakeholders involved in the setting should make more efforts to generate and promote knowledge among students about the utilization of their own strengths. Spitzer & Musslick(2021) As a result, their learning process may improve, and they may be able to increase not just their current academic achievement but also their

future professional success. Students enroll in schools with the intention of achieving certain life objectives Al-Maskari et al. (2021), such as learning and acquiring information about the world and about themselves. The rigors of curricular requirements, as well as satisfying the expectations of certain academic success criteria, have a significant influence on many aspects of a young person's life. The school is a place where kids may be encouraged to become more independent and take greater responsibility for their own decisions, activities, and educational endeavors. Students may be obliged to make a compromise between their study time and personal time because of the duties and responsibilities they are exposed to at this level. On the school campus, there should also be defined and attempts to increase students' self-awareness by assigning them tasks that require them to invest their critical and creative thinking Liu et al.(2021), allowing them to use their character strengths and take greater responsibility for

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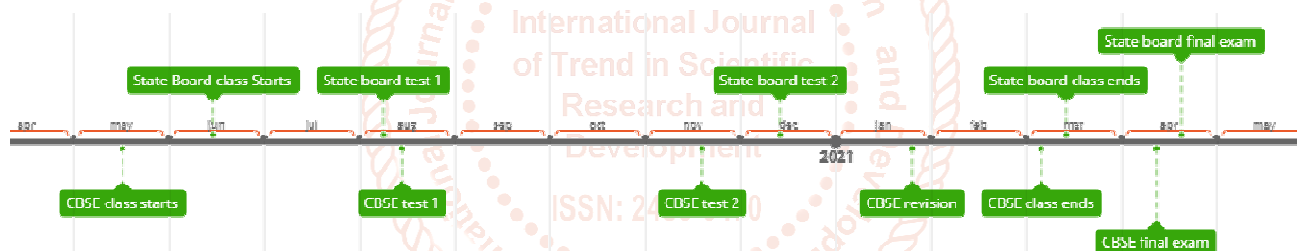


their lives and well-being. Unfortunately, in many cases, instructors' workloads are so intense that they are forced to pressurize children to meet certain Overall performance goals in a short period of time. Students are given assignments and many things to do within a set time limit. Many times, students are unable to comprehend the true purpose of the activities provided to them and just perform them without comprehending the objectives or aims. To achieve deadlines Hodges & Barbour (2021), they just follow a course laid forth by their professors. Teachers bear full responsibility for the task, and pupils must simply follow and accept the instructions, which, if not followed, may result in punishment, pressure, and criticism. Rather than imposing such predefined and predetermined goals on students, they could be given the opportunity to select and choose their own goals because when students choose their own goals, schoolwork and assignments become more worthwhile and meaningful for them, and they take greater responsibility to complete tasks in the best possible way Talsma et al.(2021), rather than simply meeting deadlines. In this approach, they may hold themselves accountable for their acts rather than blaming them on other causes like chance, fate, or

strong others. School is a period filled with both problems and possibilities. The school experience is often seen as providing several possibilities for children to develop their skills, knowledge, attitudes, values, beliefs, identity, and character characteristics in psychologically advantageous ways Hatahet et al.(2022). It is a period in which young people are enthralled by the prospect of trying out new and radical behaviors and activities that may be diametrically opposed to their past interests Adeyeye et al. (2022), and which may serve as a wake-up call for them to recognize their innate abilities and strengths Atlam et al.(2022). As a result, at the school level Aguiar et al.(2022), the many stakeholders involved in the setting should make more efforts to generate and promote knowledge among students about the utilization of their own strengths.

## II. METHODOLOGY

Academic achievement is, without a doubt, highly important in the field of education, and it is often used as a criterion for assessing levels of knowledge and skill acquisition. It is defined as a student's performance as judged by cognitive tests in accordance with the criteria established for the class and educational context.



**Fig 1 Timeline of the high school course during pandemic 2021-22**

The list of activities Course schedule and number of days for each activity for high school during pandemic 2021-22 tabulated in Table 1.

**Table 1 Course schedule and number of days for each activity for high school during pandemic 2021-22**

Activity	State board	Days	CBSE	Days
Starts	17 June 2020	0	16 May 2020	0
Test 1	10 August 2020	54	14 August 2020	90
Test 2	12 December 2020	178	16 November 2020	184
Revision	NA	NA	17 January 2021	246
Ends	14 March 2021	270	08 March 2021	296
Exam	22 April 2021	309	12 April 2021	331

To put it another way, the term 'academic' refers to the quality and amount of learning that is measured using examinations. Exam results and pupils' academic progress have been a source of tremendous anxiety for parents and teachers. Students' academic success is impacted by a variety of elements that are both a component of an individual's personality as well as the environment in which he or she lives. Some of these elements include the student's familial and social surroundings, socioeconomic level, IQ, and personality. The analysis starts with the identification of timeline presented in Fig.1.

## III. ANALYSIS

The current investigation comprised of a research sample of N=360 and the students of the study included ninth standard students of five CBSE schools and five matriculation schools in Tirupur district, Tamil Nadu and

tabulated in Table 2. The student count of to analyze the Overall performance of high school course during pandemic 2021-22 is mentioned across each school.

**Table 2 List of different schools used for data collection and student count to analyze the Overall performance of high school during pandemic 2021-22**

S. No	School Name	Type	Total
1	BHARATHI VIDHYA BHAVAN SCHOOL SENIOR SECONDARY	CBSE	185
2	Government Higher Secondary School, Kuruvampalayam	State Board	66
3	V K Government Higher Secondary School, Tirupur	State Board	37
4	Government High School, Periyarpalayam	State Board	72

The distribution of sample attributes to analyze the Overall performance of high school course during pandemic 2021-22 is variable wise (Gender, Locality, Internet Connectivity, Family Support and Economics disturbance due to CoViD-19 impact) and GroupWise

**Table 3 Distribution of sample attributes to analyze the Overall performance of high school during pandemic 2021-22**

S. No	Variable	Groups	Count	%	Total
1	Gender	Male	180	50	360
		Female	180	50	
2	Locality	Rural	142	39	360
		Urban	218	61	
3	Internet Connectivity	High Speed	203	56	360
		Low Speed	157	44	
4	Family Support	Assistance	198	55	360
		No Assistance	162	45	
5	Economics disturbance due to Economics disturbance due to CoViD-19 impact	Affected	203	56	360
		Not Affected	157	44	

In the factorial project implemented for the five variables, it was intended that applying the Mann-Whitney U test for the different groups based on their Overall performance during pandemic 2021-22.

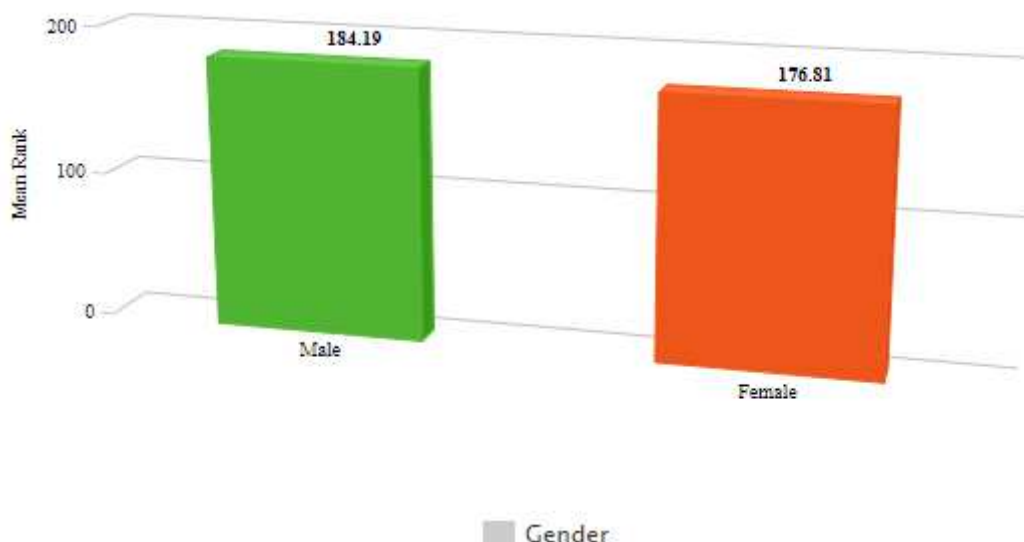
#### IV. DISCUSSION

The data collected from the students and their Overall performance was investigated by Mann – Whitney U Test. The different variables to find results of the different groups construed in this section and presented in Table 4 to Table 8. The illustration of the high school Overall performance during pandemic 2021-22 based on different groups in Fig.2 to Fig.6.

**Table 4 One way Mann-Whitney U Test of high school Overall performance during pandemic 2021-22 based on gender (Male and Female)**

Variable	Group	N	Mean rank	Sum of ranks
Gender	Male	180	184.19	33154.20
	Female	180	176.81	31825.80
	Total	360		

The results of Mann Whitney U Test for the comparison of the high school Overall performance during pandemic 2021-22 based on gender has shown that there is significant difference between the mean rank values of males and females on Overall performance during pandemic 2021-22. The mean rank value of the male students (184.19) is higher, but it is significantly higher than the female students (176.81).

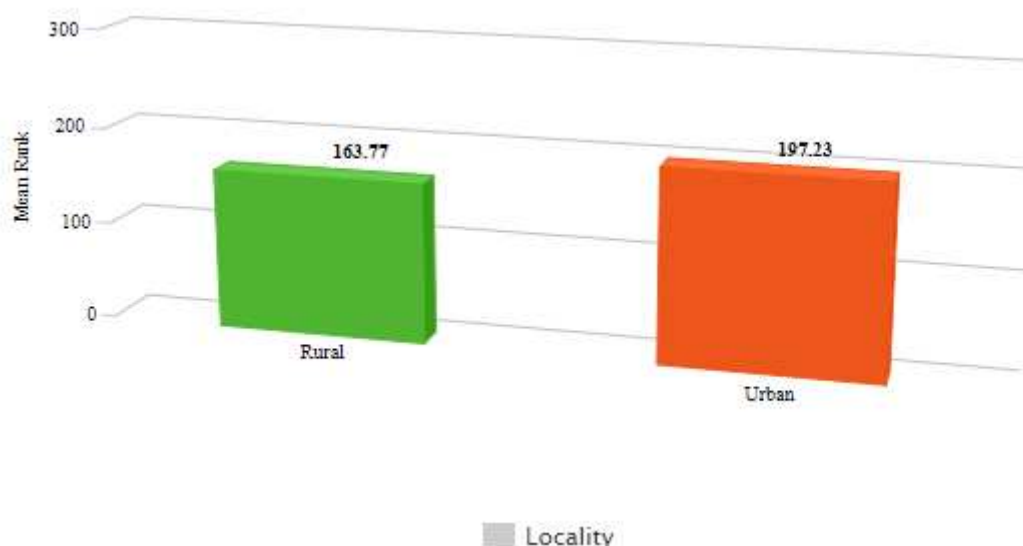


**Fig.2. One way Mann-Whitney U Test for the significant differences in the high school Overall performance during pandemic 2021-22 based on gender (Male and Female)**

**Table 5 One way Mann-Whitney U Test of high school course Overall performance during pandemic 2021-22 based on locality (Rural and Urban)**

Variable	Group	N	Mean rank	Sum of ranks
Locality	Rural	142	163.77	23255.34
	Urban	218	197.23	42996.14
	Total	360		

The results of Mann Whitney U Test for the comparison of the high school Overall performance during pandemic 2021-22 based on locality has shown that there is no significant difference between the mean rank values of rural and urban on Overall performance during pandemic 2021-22. The mean rank value of the urban students (197.23) is higher, but it is not significantly higher than the rural students (163.77).



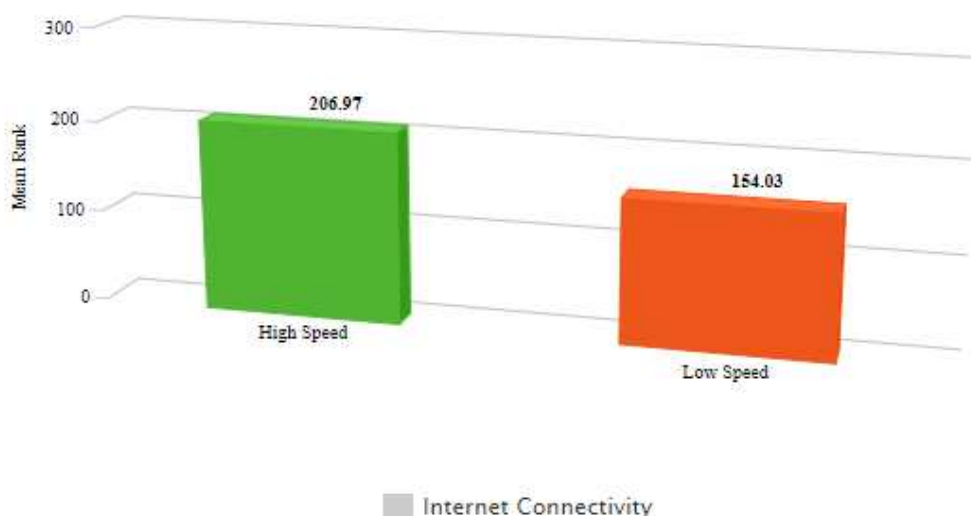
**Fig.3. One way Mann-Whitney U Test for the significant differences in the high school Overall performance during pandemic 2021-22 based on locality (Rural and Urban)**

**Table 6 One way Mann-Whitney U Test of high school course Overall performance during pandemic 2021-22 based on Internet connectivity (High speed and Low Speed)**

Variable	Group	N	Mean rank	Sum of ranks
Internet Connectivity	High Speed	203	206.97	42014.91
	Low Speed	157	154.03	24182.71
	Total	360		

The results of Mann Whitney U Test for the comparison of the high school Overall performance during pandemic 2021-22 based on internet connectivity has shown that there is significant difference between the

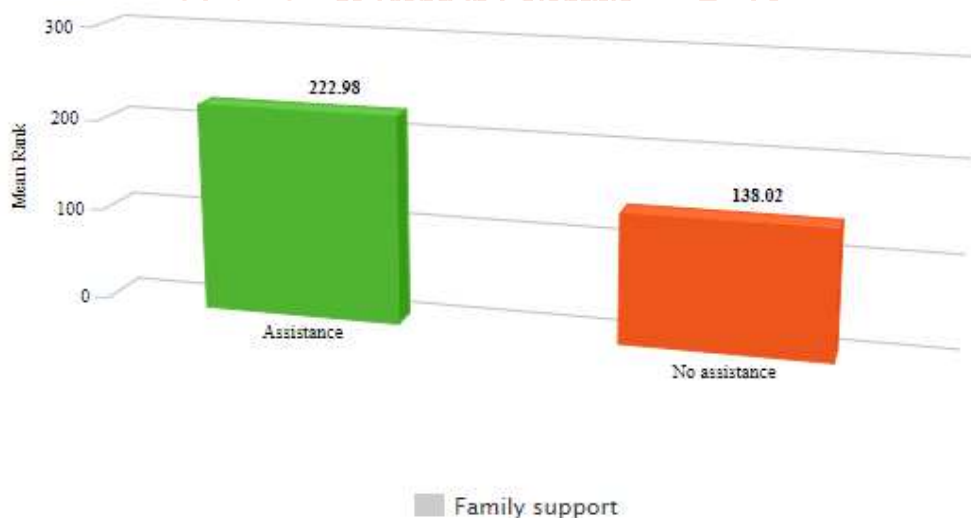
mean rank values of students with high speed and low speed internet access on Overall performance during pandemic 2021-22. The mean rank value of the high-speed internet access students (206.97) is higher, but it is significantly higher than the low-speed internet access students (154.03).



**Fig.4. One way Mann-Whitney U Test for the significant differences in the high school Overall performance during pandemic 2021-22 based on Internet connectivity (High speed and Low Speed)**

**Table 7 One way Mann-Whitney U Test of high school course Overall performance during pandemic 2021-22 based on Family support (Assistance and No assistance)**

Variable	Group	N	Mean rank	Sum of ranks
Family support	Assistance	198	222.98	44150.04
	No assistance	162	138.02	22359.24
	Total	360		



**Fig.5. One way Mann-Whitney U Test for the significant differences in the high school course Overall performance during pandemic 2021-22 based on Family support (Assistance and No assistance)**

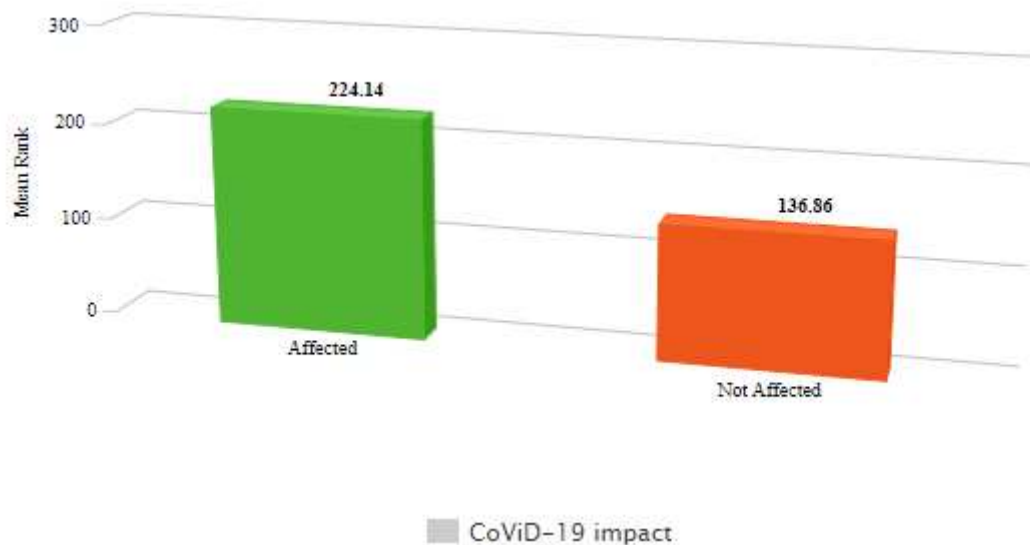
The results of Mann Whitney U Test for the comparison of the high school course Overall performance during pandemic 2021-22 based on family support has shown that there is significant difference between the mean rank values of students with and without family assistance on Overall performance during pandemic 2021-22. The mean rank value of the students with assistant (222.98) is higher, but it is significantly higher than the students without assistant (138.02).

**Table 8. One way Mann-Whitney U Test of high school course Overall performance during pandemic 2021-22 based on Economics disturbance due to CoViD-19 impact (Affected and Not Affected)**

Variable	Group	N	Mean rank	Sum of ranks
CoViD-19 impact	Affected	203	224.14	45500.42
	Not Affected	157	136.86	21487.02
	Total	360		



The results of Mann Whitney U Test for the comparison of the high school course Overall performance during pandemic 2021-22 based on Economics disturbance due to CoViD-19 impact has shown that there is significant difference between the mean rank values of students affected with and without CoViD-19 performance during pandemic 2021-22. The mean rank value of the students affected with CoViD-19 (224.14) is higher, but it is significantly higher than the students affected without CoViD-19 (136.86).



**Fig.6. One way Mann-Whitney U Test for the significant differences in the high school Overall performance during pandemic 2021-22 based on Economics disturbance due to CoViD-19 impact (Affected and Not Affected)**

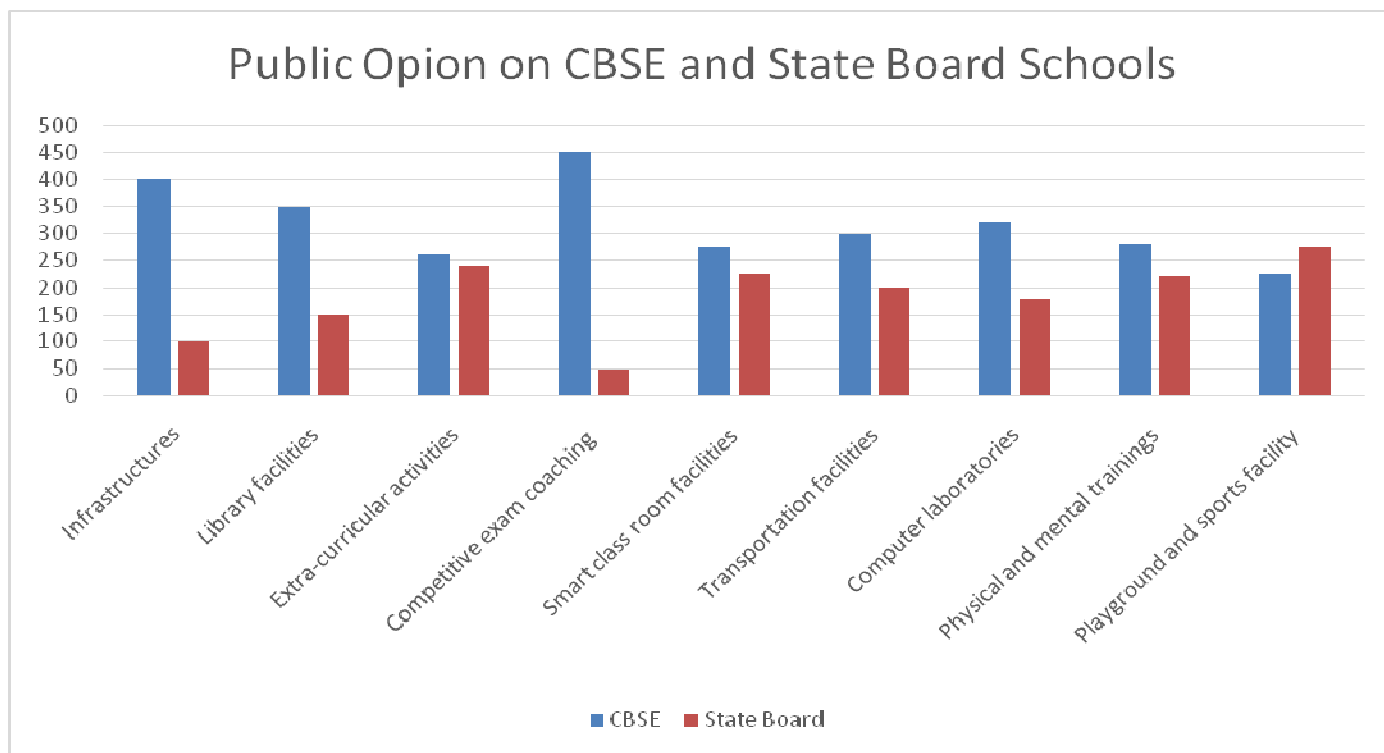
In summary, there is significant difference between the mean rank values of males and females, students with high speed and low speed internet access, students with and without family assistance, and students economically affected with and without CoViD-19 on Overall performance during pandemic 2021-22. Conversely, there is no significant difference between the mean rank values of rural and urban on Overall performance during pandemic 2021-22.

## V. OTHER FACILITIES AND BEST PRACTICES IN CBSE

There are many best practices and the facilities are available with CBSE schools which decides the overall performance of the schools, teachers and students achievements such as

1. Infrastructures
2. Library facilities
3. Extra-curricular activities
4. Competitive exam coaching
5. Smart class room facilities
6. Transportation facilities
7. Computer laboratories
8. Physical and mental trainings
9. Playground and sports facility

Teachers and Students can access the above facilities of CBSE which mold them to be the best in comparison with any other education systems. The general opinions is collected from the general public around 500 members in and around Tirupur district through the e-forms and the result is shown below. The results indicates that the CBSE schools are doing the best job in education sectors. A private CBSE schools are generating funds through various source like that donation, tuition fees, national events and endowments. Generally the state board schools are government schools which operates by the public fund. Especially, the state government contribute funds through taxes like that income tax, property tax, service tax etc. Private CBSE schools is self-generated fund as reason is they update technology, quality of education, infrastructure facility, syllabus, transportation facilities. They conduct skill development program lot of learning program for student to growth on student positive attitude. Public schools are depends of government funds so that the limitation of fund they don't improve on technology, quality, infrastructure, syllabus. So that the finding is privet schools have better performance as compare than public school performance.



## VI. CONCLUSION

The study was examined using appropriate statistical techniques and procedures, and it was determined that the number of male and female students in the study was equal. The findings of the Mann Whitney U Test for comparing the mean rank values of men and females on Overall performance during pandemic 2021-22 revealed that there is a significant difference between the mean rank values of males and females on academic performance. The number of rural students is lower than the number of urban students, hence the locality variable is used in the study. During the period 2021-22, the results of the Mann Whitney U Test for comparing high school Overall performance based on location revealed that there is no significant difference between the mean rank values of rural and urban on academic achievement. The number of students with high-speed internet connection is larger than and urban pupils are included as a geographical variable in the analysis. In 2021-22, the results of the Mann Whitney U Test for comparing high school Overall performance depending on internet connectivity revealed that there is a substantial difference between the mean rank values of students with high speed and low speed internet access on academic achievement. During pandemic, the results of the Mann Whitney U Test for comparing high school Overall performance depending on students' family assistance revealed that there is a substantial difference between the mean rank values of students with and without family support on academic achievement. The results of the Mann Whitney U Test for comparing the mean rank values of students affected with and without CoViD-

19 on Overall performance during pandemic 2021-22 show that there is a significant difference between the mean rank values of students economic condition with disturbed with CoViD-19 on academic performance. There are other facilities at CBSE schools drives the success drive in Education section. It is understood that the CBSE school performance is much better than any other form of education system especially during the pandemic. Many characteristics will be used in the future for many disciplines to assess academic success in comparison to various educational systems.

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