

ORIGINAL CONTRIBUTION

Role of Teaching Learning Strategies in Academic Performance of Students During Covid-19

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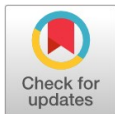
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Abstract— This research is an attempt to explore the role of teaching learning strategies on academic performance of students during covid-19 in Tehsil Khanpur. The current research was separated into two sections. First section was based on first objective, related to explore the perception of secondary school teachers about the role of teaching learning strategies in students' academic performance during Covid-19. Second section was based on second and third objective related to study variation in the application of teaching learning strategies in Covid-19 & to find out the effectiveness of applied teaching learning strategies on student performance. The target population of the study comprised male and female secondary school teachers. Sample of the study consisted of 50 male and female SSTs selected through convenient sampling technique. The study was descriptive in nature and data was collected through survey technique. Self-made questionnaire and semi structured interview were used as tool. The data was collected from secondary school teachers. SPSS was used to examine the collected data. Questionnaire data was analyzed using mean, standard deviation. After analyzed the questionnaire, researcher check the highest mean of that teaching learning strategy is extensively used in those school and then compare the BISE result with that extensively used strategy, because effectiveness of strategy and student performance are interlinked. This research was based on mixed method, using both quantitative and qualitative methods. It was found that online Teaching learning strategy is extensively used in maximum schools and it has a positive impact as students show outstanding performance in BISE Examination and this effect the student's results. So, it must be continued in the future. Study indicates that teaching learning strategies are very important in education all setting as it affects the academic performance of the students.

Index Terms— Teaching learning strategies, academic performance of students, pandemic situation, effectiveness, motivation, impacting.

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Introduction

In the wake of the COVID-19 pandemic in early 2020 saw a global suspension of face-to-face classes and large-scales school closures in an attempt to curb the viral transmission, impacting over 90% of the world's student population (UNESCO, 2020).

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According to the current situation, Government of Pakistan highlighted the need for the development of accelerated academic calendar at secondary level classes' i.e., 9th and 10th because students have suffered in a term of time lost. Motivation is a fundamental strategy for academic success. It involves external and internal factors that stimulate need and energy in student to be continuously interested or to make effort to attain a goal. Learning strategies may also be defined as patterns or sequences that are purposefully and methodically carried out by the instructor to ensure that the learning process run smoothly (Jovanovi et al., 2017; Rosari, 2019).

COVID-19 pandemic is having an effect on schools, students, teachers, and parents. In schools, the COVID-19 crisis enhances inequality. Students from more wealthy families go to schools with greater digital infrastructure, and teachers may have more advanced digital technology abilities. Some schools may be well-resourced in terms of digital technology and pedagogical materials. Students from poor backgrounds attend schools with insufficient ICT infrastructure and instructional resources (Di Pietro et al., 2020).

The school's shut due to COVID-19 may not have an equal impact on all students. Those from less rich families suffered far more throughout COVID-19 than students from more privileged backgrounds (DiPietro et al., 2020). To combat the spread of the corona virus, most nations have encouraged parents and schools to assist kids in continuing to learn at home through online learning (UNESCO, 2020a).

Student academic achievement term used as measurement of students' academic performance through examination and continuous assessment. Now a days when we using e-learning, the reallotors that affect students' academic performance. Here, through teaching learning strategies we can handle the situation and get desirable students' academic results. As we know intuitively that these highly effective teachers can have an enriching effect on the daily lives of students and their academic performance.

Previous studies mainly focused on the influence of teaching learning strategies on academic performance of students (Ahmed et al., 2013; Mariza et al., 2015), while few studies have explored the influence of learning strategies on academic achievement and their two-way influence. Hence, no consensus on how the teaching learning strategies influence the student's academic performance of students during COVID-19 is available.

Therefore the aim of this study was to find out the importance and role of teaching learning strategies on academic performance of student during covid-19.

Theoretical Framework

Learning strategies are processes to obtain, organize, or transform information (Alexander et al., 1998). Studies have shown that the student's use of these strategies has a significant and positive correlation with learning satisfaction (Choi, 2016; Kasalak & Dagyar, 2020). Students who flexibly use learning strategies have also been shown to better perceive the control of the learning process (Obergruesser & Stoeger, 2020). This phenomenon influences the student's self-efficacy, academic emotions, and learning outcome (Pekrun et al., 2011; Murayama et al., 2013; Pekrun and Perry, 2014). These conclusions are supported by the affective dynamics model of D'Mello and Graesser (2012). This model assumes that during learning, by effectively using learning strategies to eliminate learning obstacles, negative emotions will be reduced, and students will enjoy their learning. That is, learning strategies can promote the enhancement of student's positive emotions and reduce their negative emotions (Muis et al., 2015a).

Operational Definition Strategy

According to Encyclopedia, strategy refers to science or art of planning and directing large military movement and operations.

Teaching Strategy

Lawton define teaching strategy is a generalized plan for a lesson which include restructure desired learner behavior in terms of goals of instructions and an outline of planned tactics needs to implement the strategy. Teaching strategies also known as instructional strategies.

Learning Strategy

It refers to a set of skills that students use to understand different tasks.

Academic Performance

Academic performance, according to Narad and Abdullah (2016), is the information learned that is measured by a teacher's marks and/or educational goals set by students and teachers to be reached over a specified period of time.

Objectives

- To explore the perception of secondary school teachers about the role of teaching learning strategies in students' academic performance during Covid-19.
- To study variation in the application of teaching learning strategies in Covid-19.
- To examine the effectiveness of applied teaching learning strategies on student performance.

Literature Review

The lockdowns have put an unparalleled challenge on the governments to conform that there should be continuity of learning (Chang & Yano, 2020). Many countries have taken on various different measures to give out with educational disaster.

When lockdown start school was closed and a lot of children lose their social contact that is necessary to learning and development (Union, 2020). This has instant as well as a long-lasting effect, specific for the more exposed and disadvantaged society. The literal origin of the word 'virtual' is 'the possible,' derived from the Latin word "virtual is." The possibilities are influenced by a variety of events and conditions. This virtual process is not the real or true process; rather, it occurs in the context of an existing system with comparable dynamics and objectives (Podhajecka, 2018).

Distance Learning During the COVID-19 Crisis

Simonson and Berg (2016) define distance learning as a "form of education in which the main elements include physical separation of teachers and students during instruction and the use of various technologies to facilitate student-teacher and student-student communication". Previous research has found that distant learning may be equally as effective as face-to-face instruction (Cavanaugh et al. 2004; Lee & Figueroa 2012; Means et al., 2013). However, COVID-19 is a new and challenging situation with respect to distance learning, as mandatory school shutdowns due to a pandemic or natural catastrophe have never before been necessary at on a massive scale (Huber & Helm 2020).

Learning Strategies

Pakhrel and Chhetri (2021), E-learning played a vital role during this pandemic, helping schools facilitate student learning during the closure of schools (Subedi et al., 2020). School made a lot of strategies to enhancing the interest of students toward e-earning. The simple strategy that is flipped classroom it fulfil the need of learning resources i-e recorded videos and YouTube and different application links before class (Doucet et al., 2020).

Teaching Strategy

A complex educational behaviour of a teacher in using methods, techniques, tools, discipline and communications in order to achieve goals and/or objectives.

The learning strategy is a method that teacher used in organizing the students, approaches and time that learning procedure carried out (Ragin et al., 2020; D. S. S et al., 2020). Applying Teaching learning strategy is effective for running learning process (Cleveland et al., 2017; Hasan & Chumaisah, 2020). There are many strategies which enhance teaching and learning process. Some of the following are Lecture method, Discussion method, Question Answer method, Cooperative learning Assignment and presentation method. Teaching learning strategies maximize opportunities for interaction of teacher students.

- Activity Based Strategies
- Computer Teaching Strategies
- Social Learning Strategies

Student Academic Performance

Adeyemi (2008), suggested that performance is an access of educational output. Academic achievement can be observed as the extent to which a single learner acts or does a piece of work, how well or poor he/she does the job or the activities within a learning process. Poor academic achievement, however can be regarded as having performed below the required academic performance. Charles (1994), referred to poor performance as performance that fall below the desired standard.

Krashen (2005) concluded that learners whose parents are educated score higher on standardized tests than those whose parents were not educated. Educated parents can good communicate with their children regarding the school work, activities and the information being taught at school. They will be able to better support their children at work and at school (Fantuzzo & Tighe, 2000; Trusty, 1999).

The home domain also achieves the academic achievement of learners. Educated parents can give such an environment that ensemble best for academic success of their children. The school authorities can give counseling and guidance to parents for creating positive home domain for enhancement in students' quality of work (Marzano, 2003). The academic achievement of learners heavily depends upon the parent's involvement in their academic activities to access the higher level of quality in academic success (Barnard, 2004; Henderson, 1988; Shumox & Lomax, 2001).

Teacher Effectiveness

Teaching effectiveness has been received as multi, level construct since it evaluates a change of different aspects of teaching such as; subject mastery, effective communication, lesson preparation and presentation (Onyeachu 1996).

The impact of teachers' teaching effectiveness on the learning outcome of learners as measured by students' academic achievement has been the subject of many studies (Adediwura & Tayo 2007; Adu & Olatundun 2007; Lockheed & Komenan 1988; Schacter & Thum 2004; Starr 2002).

Research Methodology

This study was mixed method research. The purpose of this study is to check the role of teaching learning strategies in academic performance of students during Covid-19 through Questionnaires and analysis of BISE result of students.

Research Method

This study was based on both Qualitative and Quantitative research to check the role of teaching learning strategies in academic performance of students during covid-19.

Research Design

Mixed method research is the best way to investigate the role of teaching learning strategies in academic performance of students during Covid-19. Self-made questionnaires and semi-structured interviews were conducted to complete my study. Questionnaires were designed according to the current situation of educational strategies and student's needs.

Population

The Population of the study was students of 10th class and teachers of secondary level from government and private school Dist. Haripur.

Sample and Sampling Technique

Ten Government and private schools of Tehsil Khanpur were selected, taking 10th grade as a sample. As well as taking semi-structured interview, five teachers of per school. As a researcher I filled questionnaires from the teachers and conducting along conducting semi-structured interviews from secondary teachers as well as in analyzed the BISE result o of the students of class 10th. I will take only 10th class from every school for analyzing their BISE result. Through Kth value I pick the students.

Statistical Analysis

For the analysis of data, Statistical Package for the Social Sciences (SPSS) software was used the *t*-test was applied for the analysis of BISE result and questionnaires.

Instruments of the Study

A close ended questionnaire was used as a tool of the study which is constructing on the basis of teacher's mental level and semi-structured questionnaire issued to check the teacher's perception

Descriptive Analysis of Objective 1 and 3

- To explore the role of teaching learning strategies on students' academic performance during Covid-19.
- To examine the effectiveness of applied teaching learning strategies on student performance.

In this section data was analysed in form of responses collected from secondary school teachers in the form of questionnaire, with usage of 5 likert scale (strongly disagree = 5, disagree = 4, Neutral = 3, agree = 2, strongly agree = 1)

The questionnaire was divided into six sections as according to applied teaching learning strategies. The researcher examined that how many strategies are widely used in the schools in this pandemic condition of covid-19 by using the questionnaire, and then compare those strategies effectiveness to the school's BISE results for examine the academic performance of the students in the year, 2021. Through collected data researcher checked to see just how effective the strategies are.

Objective 02

Descriptive analysis of Objective 2:

- To explore the role of teaching learning strategies on practice during pandemic covid-19.

Comparison of school applied teaching strategies during Covid-19

Table I
Descriptive Statistics (School A)

	N	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	28.00	35.00	30.8000	2.77489
Alternative Day Strategy	5	20.00	26.00	22.2000	2.38747
Cooperative Learning Strategy	5	19.00	21.00	20.4000	.89443
Smart Curriculum Strategy	5	26.00	32.00	27.8000	2.68328
Flipped Classroom Strategy	5	11.00	12.00	11.4000	.54772
Activity Based Strategy	5	25.00	28.00	25.8000	1.30384

Table I shows that online teaching learning strategy was extensively used in School A. Online teaching learning strategy has highest mean which is 30.800, as compared to other strategies. Whereas. The mean score of other teaching learning strategies are, mean score of alternative Day Strategy is 22.200, the mean score of cooperative learning strategy is 20.4000, mean score of Smart Curriculum Strategy 27.8000, the mean score of Flipped Classroom Strategy is 11.4000, and mean score of Activity Based Strategy is 25.8000. It indicates that teachers of school A were more effective in online teaching as compare to other learning strategies.

As a result, it reveals that the School A result BISE of grade 10th was based on online teaching learning strategy.

Table II
Descriptive Statistics (School B)

	N	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	29.00	37.00	33.2000	3.63318
Alternative Day Strategy	5	20.00	26.00	22.8000	2.58844
Cooperative Learning Strategy	5	23.00	26.00	24.6000	1.14018
Smart Curriculum Strategy	5	11.00	12.00	11.4000	.54772
Flipped Classroom Strategy	5	21.00	30.00	26.2000	3.56371
Activity Based Strategy	5	17.00	21.00	19.2000	1.48324

Table II shows that online teaching learning strategy was extensively used in School B. Online teaching learning strategy has highest mean which is 33.200, as compared to other strategies. Whereas. The mean score of other teaching learning strategies are, mean score of alternative Day Strategy is 22.800, the mean score of cooperative learning strategy is 24.6000, mean score of Smart Curriculum Strategy 11.4000, the mean score of Flipped Classroom Strategy is 26.2000, and mean score of Activity Based Strategy is 19.2000. It indicates that teachers of school B were more effective in online teaching as compare to other learning strategies.

As a result, it reveals that the School B result BISE of grade 10th was based on online teaching learning strategy.

Table III
Descriptive Statistics School C

	<i>N</i>	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	25.00	32.00	28.2000	2.58844
Alternative Day Strategy	5	23.00	24.00	23.4000	.54772
Cooperative Learning Strategy	5	18.00	22.00	19.4000	1.67332
Smart Curriculum Strategy	5	10.00	14.00	12.2000	1.64317
Flipped Classroom Strategy	5	22.00	26.00	24.4000	1.51658
Activity Based Strategy	5	17.00	19.00	18.2000	1.09545

Table III shows that online teaching learning strategy was extensively used in School C. Online teaching learning strategy has highest mean which is 28.200, as compared to other strategies. Whereas. The mean score of other teaching learning strategies are, mean score of alternative Day Strategy is 23.4000, the mean score of cooperative learning strategy is 19.4000, mean score of Smart Curriculum Strategy 12.2000, the mean score of Flipped Classroom Strategy is 24.4000, and mean score of Activity Based Strategy is 18.2000. It indicates that teachers of school C were more effective in online teaching as compare to other learning strategies.As a result, it reveals that the School C result BISE of grade 10th was based on online teaching learning strategy.

Table IV
Descriptive Statistics School D

	<i>N</i>	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	28.00	31.00	30.0000	1.41421
Alternative Day Strategy	5	19.00	21.00	20.2000	1.09545
Cooperative Learning Strategy	5	18.00	23.00	20.8000	1.92354
Smart Curriculum Strategy	5	8.00	12.00	10.0000	1.87083
Flipped Classroom Strategy	5	22.00	23.00	22.8000	.44721
Activity Based Strategy	5	20.00	22.00	21.0000	1.00000

Table IV shows that online teaching learning strategy was extensively used in School D. Online teaching learning strategy has highest mean which is 30.000, as compared to other strategies. Whereas. The mean score of other teaching learning strategies are, mean score of alternative Day Strategy is 20.200, the mean score of cooperative learning strategy is 20.8000, mean score of Smart Curriculum Strategy 10.0000, the mean score of Flipped Classroom Strategy is 22.8000, and mean score of Activity Based Strategy is 21.0000. It indicates that teachers of school D were more effective in online teaching as compare to other learning strategies. As a result, it reveals that the School D result BISE of grade 10th was based on online teaching learning strategy.

Table V
Descriptive Statistics School E

	<i>N</i>	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	20.00	28.00	24.2000	3.27109
Alternative Day Strategy	5	18.00	21.00	19.2000	1.30384
Cooperative Learning Strategy	5	22.00	25.00	23.2000	1.30384
Smart Curriculum Strategy	5	7.00	10.00	8.8000	1.09545
Flipped Classroom Strategy	5	23.00	28.00	25.6000	2.07364
Activity Based Strategy	5	13.00	17.00	15.2000	1.78885

Table V shows that flipped classroom strategy was extensively used in School E. flipped classroom strategy has highest mean which is 25.6000, as compared to other strategies. Whereas. The mean score of other teaching learning strategies are, mean score of online teaching strategies is 24.2000, mean score of alternative Day Strategy is 19.200, the mean score of cooperative learning strategy is 23.2000, mean score of Smart Curriculum Strategy 8.8000 and mean score of Activity Based Strategy is 15.2000. It indicates that teachers of school E were more effective in online teaching as compare to other learning strategies.As a result, it reveals that the School E result BISE of grade 10th was based on online teaching learning strategy.

Table VI
Descriptive Statistics School F

	N	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	22.00	27.00	25.0000	1.87083
Alternative Day Strategy	5	23.00	26.00	24.000	1.22474
Cooperative Learning Strategy	5	18.00	21.00	19.2000	1.09545
Smart Curriculum Strategy	5	4.00	8.00	6.2000	1.64317
Flipped Classroom Strategy	5	25.00	28.00	26.4000	1.14018
Activity Based Strategy	5	18.00	21.00	19.2000	1.09545

Table VI shows that flipped classroom strategy was extensively used in School F. flipped classroom strategy has highest mean score which is 26.4000, as compared to other strategies. Whereas, the mean score of online teaching strategies is 25.0000, mean score of alternative Day Strategy is 24.000, the mean score of cooperative learning strategy is 19.2000, mean score of Smart Curriculum Strategy 6.2000 and mean score of Activity Based Strategy is 26.4000. It indicates that teachers of school F were more effective in Flipped classroom strategy as compare to other learning strategies.

As a result, it reveals that the School F result BISE of grade 10th was based on online teaching learning strategy.

Table VII
Descriptive Statistics School G

	N	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	26.00	32.00	28.000	2.77489
Alternative Day Strategy	5	24.00	28.00	26.6000	1.51658
Cooperative Learning Strategy	5	15.00	56.00	25.600	17.09678
Smart Curriculum Strategy	5	4.00	8.00	6.200	1.48324
Flipped Classroom Strategy	5	20.00	27.00	23.600	2.60768
Activity Based Strategy	5	20.00	27.00	23.600	2.60768

Table VII shows that Alternative Day strategy was extensively used in School G. Alternative Day strategy have highest mean score which is 26.6000, as compared to other strategies. Whereas, the mean score of online teaching strategy is 28.0000, the mean score of cooperative learning strategy is 25.600, mean score of Smart Curriculum Strategy 6.2000, the mean score of flipped classroom strategy is 23.600 and mean score of Activity Based Strategy is 23.600. It indicates that teachers of school G were more effective in Alternative Day strategy as compare to other learning strategies. As a result, it reveals that the School G result BISE of grade 10th was based on Alternative Day Strategy.

Table VIII
Descriptive Statistics School H

	N	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	24.00	29.00	25.800	2.48998
Alternative Day Strategy	5	17.00	26.00	20.600	4.09878
Cooperative Learning Strategy	5	18.00	21.00	19.800	1.30384
Smart Curriculum Strategy	5	6.00	11.00	8.8000	1.92354
Flipped Classroom Strategy	5	22.00	23.00	22.200	.44721
Activity Based Strategy	5	20.00	24.00	21.8000	1.48324

Table VIII shows that Online Teaching Strategy was extensively used in School H. Online Teaching Strategy highest mean score which is 25.8000, as compared to other strategies. Whereas, the mean score of Alternative Day Strategy is 20.600, the mean score of cooperative learning strategy is 19.800, mean score of Smart Curriculum Strategy 8.8000, the mean score of flipped classroom strategy is 22.200 and mean score of Activity Based Strategy is 21.800. It indicates that teachers of school H were more effective in Online Teaching Strategy as compare to other learning strategies.

As a result, it reveals that the School H result BISE of grade 10th was based on Online Teaching Strategy.

Table IX
Descriptive Statistics School I

	N	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	28.00	34.00	30.400	2.19089
Alternative Day Strategy	5	18.00	24.00	21.200	2.38747
Cooperative Learning Strategy	5	18.00	22.00	19.4000	1.51658
Smart Curriculum Strategy	5	6.00	10.00	8.400	1.67332
Flipped Classroom Strategy	5	24.00	27.00	25.800	1.30384
Activity Based Strategy	5	18.00	21.00	19.800	1.30384

Table IX shows that Online Teaching Strategy was extensively used in School I. Online Teaching Strategy highest mean score which is 30.4000, as compared to other strategies. Whereas, the mean score of Alternative Day Strategy is 21.200, the mean score of cooperative learning strategy is 19.400, mean score of Smart Curriculum Strategy 8.4000, the mean score of flipped classroom strategy is 25.800 and mean score of Activity Based Strategy is 19.800. It indicates that teachers of school I was more effective in Online Teaching Strategy as compare to other learning strategies.

As a result, it reveals that the School I result BISE of grade 10th was based on Online Teaching Strategy.

Table X
Descriptive Statistics School J

	N	Minimum	Maximum	Mean	Std. Deviation
Online Teaching Strategies	5	27.00	32.00	30.00	1.87083
Alternative Day Strategy	5	23.00	26.00	24.400	1.34164
Cooperative Learning Strategy	5	17.00	22.00	20.00	1.87083
Smart Curriculum Strategy	5	6.00	9.00	8.200	1.30384
Flipped Classroom Strategy	5	23.00	27.00	25.200	1.48324
Activity Based Strategy	5	16.00	21.00	17.800	1.92354

Table X shows that Online Teaching Strategy was extensively used in School J Online Teaching Strategy highest mean score which is 30.000, as compared to other strategies. Whereas, the mean score of Alternative Day Strategy is 24.400, the mean score of cooperative learning strategy is 20.00, mean score of Smart Curriculum Strategy 8.2000, the mean score of flipped classroom strategy is 25.200 and mean score of Activity Based Strategy is 17.800. It indicates that teachers of school J were more effective in Online Teaching Strategy as compare to other learning strategies.

As a result, it reveals that the School J result BISE of grade 10th was based on Online Teaching Strategy.

Objective 03

Analysis

for checking the student academic performance we taken the BISE result of students. As a researcher, I take a cut point, I take only the result of class 10 of the year 2021. To check that which strategies were more effective as compare to others and extensively used in selected schools during the pandemic of covid-19.

As a researcher, I only high light six teaching learning strategies, are listed below

- 1: cooperative learning strategy,
- 2: flipped classroom strategy,
- 3: smart curriculum strategy,
- 4: online teaching learning strategy,
- 5: alternative day strategy,
- 6: Activity based strategy.

I have taken BISE result of grade 10 from ten selected schools of Tehsile Khanpur both private and public were included.

Table XI
Average Results of School

S.No	Extensively Used Strategy	Average Results of School
School A	online teaching learning strategy	80% BISE Result
School B	online teaching learning strategy	65%
School C	online teaching learning strategy	99%
School D	online teaching learning strategy	90%
School E	flipped classroom strategy	85%
School F	flipped classroom strategy	70%
School G	Alternative Day Strategy	80%
School H	online teaching learning strategy	75%
School I	online teaching learning strategy	80%
School J	online teaching learning strategy	70%

In School A, online teaching strategy was extensively used in that school and gives a effective BISE result of students of grade 10th. As well as smart curriculum strategy was also used in that school. With the extensive usage of these two teaching learning strategies students give very effective and outstanding results. School A give 80% BISE results and students perform very effectively by the extensive usage of these two strategies that are online teaching learning strategy and smart curriculum strategy.

In School B, online teaching strategy was extensively used in that school and not gives an effective BISE result of students of grade 10th. With the extensive usage of this teaching learning strategy students do not give very effective and outstanding results. School B give 65% BISE results and students perform less effective as compare to other schools by the extensive usage of this strategies that is online teaching learning strategy.

In School C, online teaching strategy was extensively used in that school and gives a effective BISE result of students of grade 10th. As well as flipped classroom strategy was also used in that school. With the extensive usage of these two teaching learning strategies students give very effective and outstanding results. School C give 99% BISE results and students perform very effectively by the extensive usage of these two strategies that are online teaching learning strategy and flipped classroom strategy.

In School D, online teaching strategy was extensively used in that school and gives an outstanding BISE result of students of grade 10th. With the extensive usage of online teaching learning strategies students give very effective and outstanding results. School D give 90% BISE results and students perform very effectively by the extensive usage of this strategy that is online teaching learning strategy.

In School E, flipped classroom strategy was extensively used in that school and gives an effective BISE result of students of grade 10th. As well as flipped classroom strategy improve the performance of students. With the extensive usage of this teaching learning strategy students give very effective and outstanding results. School E gives 85% BISE results and students perform very effectively by the extensive usage of this strategy that is flipped classroom strategy.

In School F, flipped classroom strategy was extensively used in that school and gives an effective BISE result of students of grade 10th. As well as flipped classroom strategy improve the performance of students. With the extensive usage of this teaching learning strategy students give very effective and outstanding results. School F gives 70% BISE results and students perform very effectively by the extensive usage of this strategy that is flipped classroom strategy.

In School G, Alternative Day strategy was extensively used in that school G and gives a effective BISE result of students of grade 10th. As well as Alternative Day strategy improve the performance of students. With the extensive usage of this teaching learning strategy students give very effective and outstanding results. School E gives 85% BISE results and students perform very effectively by the extensive usage of this strategy that is Alternative Day strategy.

In School H, online teaching strategy was extensively used in that school and gives an outstanding BISE result of students of grade 10th. With the extensive usage of online teaching learning strategies students give very effective and outstanding results. School H give 75% BISE results and students perform very effectively by the extensive usage of this strategy that is online teaching learning strategy

In School I, online teaching strategy was extensively used in that school and gives an outstanding BISE result of students of grade 10th. With the extensive usage of online teaching learning strategies students give very effective and outstanding results. School I give 80% BISE results and students perform very effectively by the extensive usage of this strategy that is online teaching learning strategy.

In School J, online teaching strategy was extensively used in that school and gives an outstanding BISE result of students of grade 10th. With the extensive usage of online teaching learning strategies students give very effective and outstanding results. School H give 70% BISE results and students perform very effectively by the extensive usage of this strategy that is online teaching learning strategy,

Discussion

This was a research which had purpose of finding out role of teaching learning strategies on academic performance of student during covid-19.

The current research was separated into two sections. First section was based on second objectives, Second section was based on first and third objective related to role of teaching learning strategies on practice during covid-19.

First objective of the study was to examine the role of teaching learning strategies on academic performance of student during covid-19. To analyse the first objective conducted a self-made questionnaire related to teaching learning strategies, filled from 50 sst of Gov. and private school Tehsile Khanpur. It was found that majority of secondary School Teachers were in the favour online teaching strategies. The findings demonstrate that online teaching strategies are very effective during pandemic of covid-19 and by using these strategies school gain an effective and outclass BISE result. Students' academic understanding is very much good as compare to previous year. Teaching learning strategies were well-planned and arranged as a result of the organizers' superior pre-planning. It was found that respondents applied those strategies in their students and makes the students' academic performance better. It demonstrated that teaching learning strategies practices can be make more effective because innovative ideas comes with the discussion of their fellows, peers and colleges.. There was a research by (Bergmann et al., Tucker, 2021, Nerantzi, 2020). The cooperative interaction and learning activities that occur during the face to face or online setting is very important. Distance learning has been a challenge for student not used to learning in an online surrounding, but also for teachers, taking time and preparation to quickly pick traditional and in presence lecture s to a virtual format or online format.

The findings shows that the online teaching learning strategy is a great challenge for teachers and learner because it was a new plate form for both teacher and learner.

The findings shows that online teaching strategies are useful for the students' academic achievement or performance. Majority of the respondents were agreed that through teaching learning strategies, learner take interest toward their studies and do something new.

The major findings related to first objective are in line with the findings Flores and Savages (2007) have showed that in online teaching strategies pre-recorded lecture material aid in gaining higher student performance and students give a lot of attention to classes that makes use of recorded lectures. The main motivation is teachers preparing their own videos material is the advantage of being more personal to students.

It was also found that teacher learning strategies were beneficial to teachers and students since they gave them the opportunity to study and apply what they had learned. The majority of teachers agreed that cooperative learning strategy helps the learner to communicate each other an exchange their information w There were the major conclusions of the present study:

1. It was concluded that teaching learning strategies were beneficial to learners since they gave them the opportunity to study at their own pace and apply what they had learned. The majority of teachers agreed that online teaching strategy and cooperative learning strategy are very effective.

2. At the secondary level, teaching learning strategies are very effective it was found that teachers performed better in their teaching practices. It is a highly effective point that ongoing learner take or show interest toward online plate form because online teaching learning strategies were playing a very successful role in enhancing the efficiency and skills of learner. So, it must be continued in the future.

3. The conclusion was drawn based on the study's findings. These factors, it concluded, teaching learning strategies have a great impact on academic performance of students during covid-19 and teacher used variation of application. Distance from the practice school, a lack of financial, learner management, and a lack of collaboration from school teachers were the key issues.

Some studies have suggested that learning strategies are correlated with a stronger intention to participate in learning process (Salam and Farooq, 2020), lower dropout rates (Hew et al., 2020), and better learning performance (Al-Fraihat et al., 2020). The purpose of the current study was to respond to this need by examining how learning strategies predict academic performance during Covid-19 and how do these variables predict student achievement. In addition, the manner by which the interaction of learning strategies with behavioral engagement and social interaction may predict learning satisfaction was also explored. The results of this study are also aligned with (Miller, 2021) . The results of the study (Wu, C,2021) also indicates that using different learning strategies could stimulate more positive performance and less negative performance. And learning strategies had indirect effects on learning performance of the students.

Recommendations

1. Administering Learning portals with a higher level of interaction with teachers and peers are suggested.
2. Schools should establish unique online portals based on the integrative nature of the web or social media, combining course materials with relevant academic and professional resources available online, where students may enhance their learning experience.
3. It is recommended that Students should be trained for the portal's utility as well as the ability to access resources from a variety of devices and locations.

4. It is recommended to use online teaching because the e-mentoring function may improve on-campus support and evaluate students in any area where they are weak by giving additional resources.

5. It is recommended that in any pandemic situation, online teaching be utilized for quality education and student academic achievement.

Limitations

1. The study was limited to the students of secondary schools of Tehsil Khanpur therefore, the results cannot be generalized to the students of primary and middle level as well.

2. This study was quantitative so it is possible that many types of teacher's feedback were not covered. In the future, the qualitative aspect of this study might fill the gaps.

Recommendations for Future Researchers

1. This study was conducted at secondary level, it is suggested to conduct same research at primary level.

2. Research may be conducted in schools by adding more innovative instructional tools by using variable teaching learning strategies and elementary level as well.

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