Covid-19's Impact on Sindh Education: Paradigm Shift to Neoteric Teaching and Human Resource Mobilization Strategy at Primary Schools Level in Sindh-Pakistan

[1]Dr.Hamzo Khan Tagar, [2]Mr. Sheraz Ali, [3]Mr. Lahoot Abro,
[4]Mr. Ghulam Ali Bijarani:

[1]*Director Public Private Partnership Node, School Education &Literacy Department, Government of Sindh, Karachi Pakistan.*
[2]*Senior Manager, Sindh Education-MIS, Reform Support Unit, School Education and Literacy Department, Government of Sindh, Pakistan.*
[3]*Executive Finance, Institute of Business Administration Karachi, Sindh, Pakistan.*
[4]*District Head Local Support Unit, School Education & Literacy Department, Government of Sindh, Karachi Pakistan.*
Corresponding Author: [1]Dr.Hamzo Khan Tagar

ABSTRACT: This study is a comprehensive attempt to examine the situation of the educational institutions and the challenges to reopening those and rationalizations of teachers placed in the primary schools of Sindh to find out the real crisis of human resource management in the school education department. The Study concludes that the student teachers ratio may be revisited in context to maintain the quality of educations in the classrooms by the placement of teachers in the schools on rational and global standards to introduce and implement alternative strategies in lockdown areas to continue their education with preventive measures and also implement good governance system at primary schools level and to save the economic, financial and human resources in the greater public interest. Study suggests that information technology based education may be introduced in Sindh schools on urgent basis to face the challenges at gross roots level.

Keywords: *School Education System, Quality Education, Sustainable Development Goals (SDGs), Education in Covid-19, Teacher Rationalization, Students Teachers Ratio (STR), Primary School Teacher (PST).*

I.   INTRODUCTION:

Due to extremely infectious Novel Corona virus (COVID-19), almost all worlds is in state of emergency, and smart lockdowns of entire cities, its impacts on almost all walks of life, particularly Health, Wealth and Education are affecting the most, these are indispensable factors for the country's economic growth. According to UNESCO's Mid-April 2020 published figures, 1.5 billion School-age children and adolescents were affected by the closures of educational institutions in the 195 countries and territories, from kindergarten to 12th grade (K-12) education. However, End-April 2020, the number is decreased, 1.3 billion students yet to attend the school that in 186 countries and territories, the report further reveals that even 128 countries not yet announced their plans for reopening educational institutions [1].

The Pakistan Education Statistics 2016 - 17 Report used National Institute of Population Studies (NIPS) projections for the year 2016 for calculating out-of-school children and report quoted51.53 million learners between the ages of 5 and 16 years in Pakistan out of which 22.84 million children out of school [2]. However, the Schools in Pakistan were closed since March 2020 and now the government has announced to reopen educational institutions at the start of September 2020. It is pertinent to highlight that according to the Sindh Education Profile 2016-17, overall 13.34 million learners between the ages 4 to 16,out of which 6.40 million population of kindergarten to 5th grade [3].

UNDP Report (2019), elaborate dismal picture of education and literacy in the country with reference to the UNDP report on Human development. "Pakistan is ranked 152 out of 189 countries in the United Nations Development Program's (UNDP) Human Development Index (HDI) ranking. Unfortunately, Pakistan has not exhibited improvement in key educational indicators, such as literacy rate, gross enrolment ratio, and expenditure on education, as compared to regional countries. Pakistan's literacy rate 57 percent lags well behind its neighboring countries. The primary school dropout rate is 22.7 percent (3rd highest in the region after Bangladesh and Nepal), which is alarming" [4].

The Pakistan Social and Living Standards Measurement (PSLM) Survey 2018-19, concludes that "the literacy rate of the population (10 years and above) is 60 percent as compared to 58 percent in 2015-16. The literacy rate is higher in urban areas (74 percent) than in rural areas (51 percent). Province wise analysis suggests that Punjab has the highest literacy rate, with 64 percent followed by Sindh and Khyber Pakhtunkhwa (Excluding Merged Areas) with 57 percent, Khyber Pakhtunkhwa (Including Merged Areas) with 55 percent and Baluchistan with 40 percent". [5]

According to latest report of ASER Pakistan 2019, overall, teacher attendance in government school was 87% in 2018 compared to 89% in 2019. Overall, student attendance in a government schools was 84% compared to 88% in private schools. [6].

I.I Public Expenditure on Education Sector of Pakistan: The Economic Survey of Pakistan provides the latest figures of public money spending that "Public expenditure on education was estimated at 2.3 percent of GDP in 2018-19, as compared to 2.4 percent in 2017-18. Expenditure on education has been rising gradually since the 2014-15. The education-related expenditure increased by 4.7 percent (to Rs868.0Billion) in 2018-19. The provincial governments are also spending a sizeable amount of their Annual Development Plans (ADPs) on education. Punjab increased its expenditure in 2018-19 to Rs371.8 billion as compared to Rs340.8 billion in 2017-18, which shows an increase of 9.1 percent. Expenditure on education in Khyber Pakhtunkhwa has also increased to Rs152.7 billion, as compared to Rs142.6 billion last year, which shows an increase of 7.1 percent in 2018-19. Similarly, Baluchistan has increased its expenditure from Rs52.8 billion in 2017-18 to Rs55.3 billion in 2018-19, which shows a growth of 4.8 percent. A minor decline of 2.1 percent has been observed in Sindh, as expenditure on education stood at Rs162.6 billion in 2018-19 as compared to Rs166Billion in 2017-18"[7]. In our context, people preferred to a get job in public sector schools and they wish to work at the nearest place from their homes, perhaps the major factors are transportation cost &time preservation. It is a fact that more people from urban areas get jobs easily as compared to rural areas. Once they get a job, they try their influence to adjust in the nearest place (urban area) by posting / verbal transfer / on detainment any other options available. Therefore, there is a need for the rationalization study of teachers before calculating the new demand for teachers. Hence, this draws the objective of this in-depth analysis of the field.

II. OBJECTIVES:

The purpose of this paper is to identify the realistic demand of teachers in Sindh as per minimum standard criteria. The study presents analysis of teachers rational at province and district level as a ground reality in the primary schools. It is expected that this study will contribute significantly to human resources management in the public sector schools to resolve the issue permanently for the great cause of quality education for all in the province. The specific objectives of the study were to:
- I. An evaluation of the Primary teacher's placement in Sindh.
- II. Assess the details of rationales as per teachers and student's ratio which is required to maintain the quality of educations globally.
- III. Examine different aspects of the challenges and their adverse impact on the quality of educations and to submit policy recommendations for improvements.

IV. RESEARCH QUESTIONS:

The study was guided by the following questions:
- I. What is the present status of the primary teacher's placements in the public sector schools in Sindh a southern province of Pakistan?
- II. How the quality of the educations affects by the misplacement and frequent transfers of the teachers?
- III. What is its impact on education quality and Job Performance in the short and long-run?

IV. METHODOLOGY& DATA:

Descriptive methods of research are used to analyze two groups of districts (two best and two worst) based on students per teacher placement ratio (STR) for the understanding the need for rationalization in the primary schools of Sindh province. The findings of the study can be used by the policy planners and implementing authorities to improve maximum performance within the given time frame and given limited human resources. The data is given in the study is based on Reform support unit a World Bank funded project of Sindh School Education and Literacy Department.

V.   DISCUSSIONS AND RESULT:

V.a. Levels of Education System in Sindh: The education system in Sindh has six levels i.e. (1) recently introduced Early Childhood Education-ECE (locally known as Katchi class), (2) Primary, (3) Middle / Elementary, (4) Secondary, (5) Higher Secondary and (6) Technical Vocational / Tertiary education. As per below categorization shown in table-01, there are two separate streams (Primary &Post Primary institutions) of formal public schools and this paper is focused on primary schools only. The levels of educations are also elaborated in figure 01 below in detail through a graph.

Table-01- Level of Education System with Age and current Situation Analysis
Std. = Students, Tch.=Teachers, Enr.=Enrollment [8].

Level >>	ECE / Katchi	Primary	Middle (MD) / Elementary (EL)	Secondary	Higher Secondary
Classes	ECE	1 to 5	MD=6 to 8 EL=1 to 8	9 to 10	11 to 12
Age	3-5	5/6 to 9/10	MD=10/11to12/13 EL=5/6 to12/13	13/14to14/15	15/16 to 16/17
Current Situation	Formal ECE has been started from 2015	Std.=42,342 Tch.=92,521 Enr.=2,802,824	Std.=2,336 Tch.=11,980 Enr.=246,893	Std.=1,752 Tch.=32,194 Enr.=723,052	Std.=294 Tch.=8,743 Enr.=312,646
Taking for Teacher Rationalization	NA	Yes (Stream 01 Primary)	Not (Stream 02 Post Primary)		

Figure -01   The education system in Sindh has six levels in details
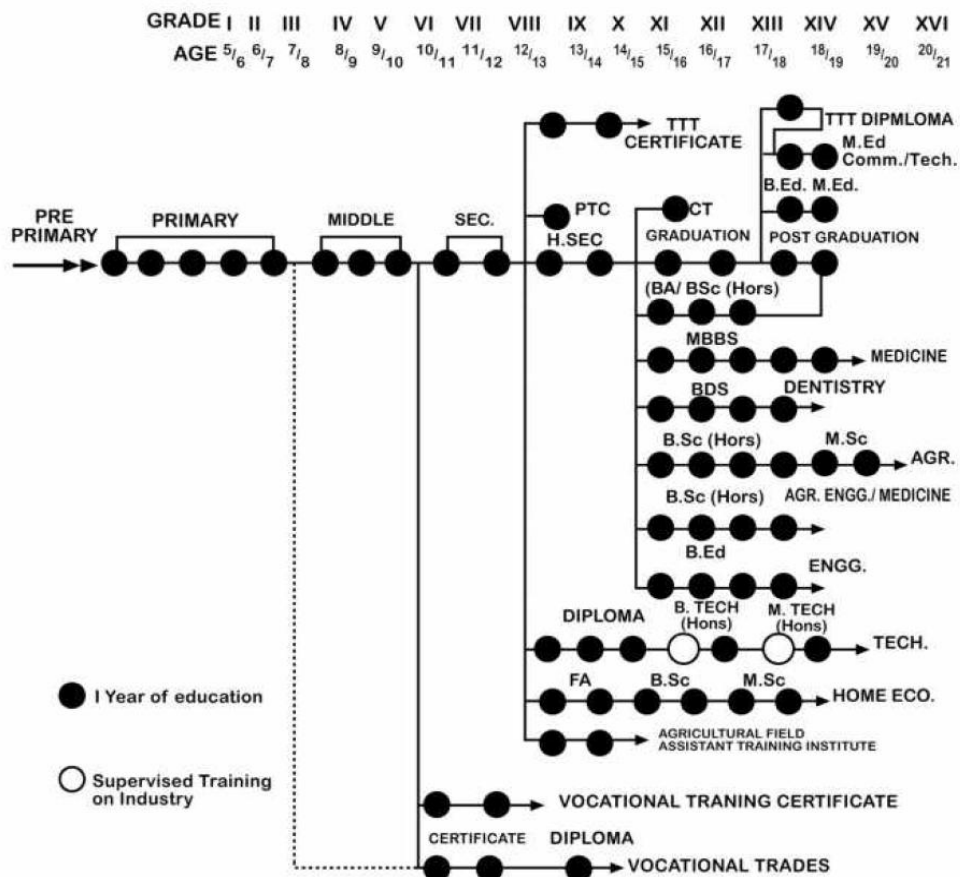
[8]

V.b. Rationalization of Teachers: Empirical Analysis of Two Best Districts, Scenario and Facts at Primary Schools Level

The table below (Table-2) shows two groups of districts (two best and two worst) based on the student teacher ratio (STR) for understanding the need for rationalization. Two best Districts Scenario and facts are analyzed as best districts named Karachi and Hyderabad. It is evident that no more teachers are required in primary level Schools but there are issues related to governance that need to be resolved. For instance, in the case of Karachi student and teachers' ratio (STR) are 20 which shows teachers are in excess and at the same time, 191schools are reported without a teacher so it needs to rational of teachers in placement by best human resource management practices to save the economic-financial and human resources and also for improvement in managerial practice for quality improvement. The fact (STR=20) shows that there is no need for additional primary school teachers (PSTs) whereas 555 more PSTs were recruited in round three of 2014. It is observed that instead of recruiting new teachers in below 35 STR districts, actually there is a need for rationalization of teachers for re-opening viable closed schools and providing teachers to high enrollment & high STR schools i.e. by transferring teachers from 186 Schools which are below STR (even Gulberg town Karachi has 11 STR) to the viable closed schools. Hyderabad is the second top district in Sindh, STR is 21 but there is 61% (15) gap between Rural STR (32) and Urban STR (17). The fact shows that if Teachers transfer from Hyderabad City (STR=16) to Hyderabad (STR=32), the gap will be reduced to 23% (5) urban STR will be 19 and rural 24 (without adding the round three teachers of 2014).

V.c. Rationalization of Teachers: Empirical Analysis of Two worst Districts Scenario and Facts at Primary Schools Level

Looking at the scenario and facts of the top two worst districts, there are governance issues, as well as the shortage of teachers. In two worst district mentioned as 1-C below named Ghotki, though the district student and teachers' ratio (STR) (44) is highest in Sindh, even in Daharki STR is 62, it is also observed that there is a gap between Taluka Mirpur Mathelo STR (30) and Daharki STR (62), which is 70% (32). So there is a need to reshuffle staff from one Taluka to another. Through rationalization, adding around three 455 PSTs and transfer 169 teachers from Taluka Mirpur Matheloto other Taluka(s) the gap will be reduced i.e. after rationalization gap between Taluka Mirpur Mathelo STR (36.5) and Daharki STR (41.5) is 13%. In another worst district mentioned below as 1-D named Dadu concluded in round three 455 PSTs still STR stands on 39 (Enrolment 149,437divided by Teachers 3,831) that's why 440 teachers more required to maintain student and teachers' ratio -STR=35. Limitations: Though Previous Third-party validation reports showing data accuracy on the enrollment indicator are approx. 63% and Teachers 83% but we have the only source of Annual School Census 2013-14 for the calculation of student and teachers' ratio (STR).

	Case Label –District	Primary Schools	Enrolment	Working Teachers	District STR	Location		No. of Schools without Teachers	Total Schools Below STR	Taluka/Town		
						Urban	Rural			No. of Talukas / Towns	Min STR	Max STR
Best 1	A-Karachi	2,308	237,000	11,844	20	19	26	191	186	18	Gulberg Town STR=11	Bin Qasim Town STR=32
Best 2	B-Hyderabad	779	75,233	3,588	21	17	32	41	52	4	Hyderabad City STR=16	Hyderabad STR=32
Worst 1	C-Ghotki	1,875	149,437	3,376	44	36	46	387	555	5	Mirpur Mathelo Str=30	Daharki STR=62
Worst 2	D-Dadu	1,965	199,360	4,685	43	34	45	305	423	4	Dadu STR=35	Mehar STR=48

Table 02 – Two best and two worst districts as per student and teachers' ratio (STR)

Data Source [8]

V.d. Teachers Rationalization for Primary Schools in Sindh: The main purpose of this exercise is to achieve a maximum result (i.e. No more closed School remained in the province and the teacher posted with the best possible STR basis) and reshuffling minimum number of teachers, therefore, Intra-District teacher rationalization approach was adopted and for each District following steps have been taken for rationalization and calculation of realistic demand of primary school teachers by using the latest available data sets of (Annual School Census (ASC) 2013-14 and Teacher Recruitment round III) for a more valid result on the issues in in-depth details.

Step 01: Eliminate non-government teachers
Step02: Eliminate teachers who are retired until February, 2015
Step 03: Eliminate teachers who are working in post-primary schools
Step 04: Eliminate post-primary schools and calculate Sindh STR
Step 05: Calculate Student Teacher Ratio (STR) for each Taluka (Taluka) / Town of the district
Step 06: Median STR Selected for further rationalization
Step 07: Adding round III Teachers

<u>Step 08</u>: Apply rationalization of teachers and calculate the need for Schools as per the standard ratio
<u>Step 09</u>: Generate a district-wise report before and after the situation.
<u>Step 10</u>: Generate district wise demand and overall province demand of teachers.

In order to automate all aforementioned steps from 05 to onward, a dashboard has been developed and exhibited in (Figure-02).

V.e. How Dashboard developed:
Using Annual School Census 2013-14 data and recruitment round III data and filter-out extraneous data (see detail 5.4.1.1&5.4.1.2) and import into the dashboard system.

V.f.   Steps 1-3 eliminating Teachers (non-government teachers, retired Teachers and post-primary teachers)
After eliminating non-government 4,813 teachers (140,625 Teachers remained), similarly, removing 2,611 teachers who will retire till February 2015 (138,014 Teachers remained) and finally, 50,651 post-primary Schools teacher filtered (87,363 Teachers remained for the rationalization as reflected at table 03).   **Table -03**

Each step we get >	Teachers in Dataset	After Step 01 (Non Government Teachers)	After Step 02 (Retired till Feb 2015)	After Step 03 (Post Primary Schools Teachers)
Teachers	145,438	140,625	138,014	87,363

[8]

V.g.   Step 4 eliminate post primary schools
After eliminating post primary schools 2,336, dataset had 42,342 primary Schools. The Sindh STR for primary schools is 1:32, meaning thereby, and 1 teacher for 32 students as mentioned in table 04 below.
Table -04

Province	Schools	Enrolment	Teachers	STR
Sindh	42,342	2,802,824	87,363	1:32

[8]

V.h. How Dashboard Works:
When the user select district, dashboard calculated Taluka wise STR and select median STR for the rationalization. The Dashboard also shows a number of schools without a teacher, district-level average STR along with how many schools are below district level STR. Finally, the user set the input or goes with the default setting then click on "Rationalize Teacher" button system will rationalize teachers according to the input and generate summary and various reports (Figure-02).

Figure 02: Dashboard for Teacher Rationalization (Showing input, process and output along with before after rationalization summary)
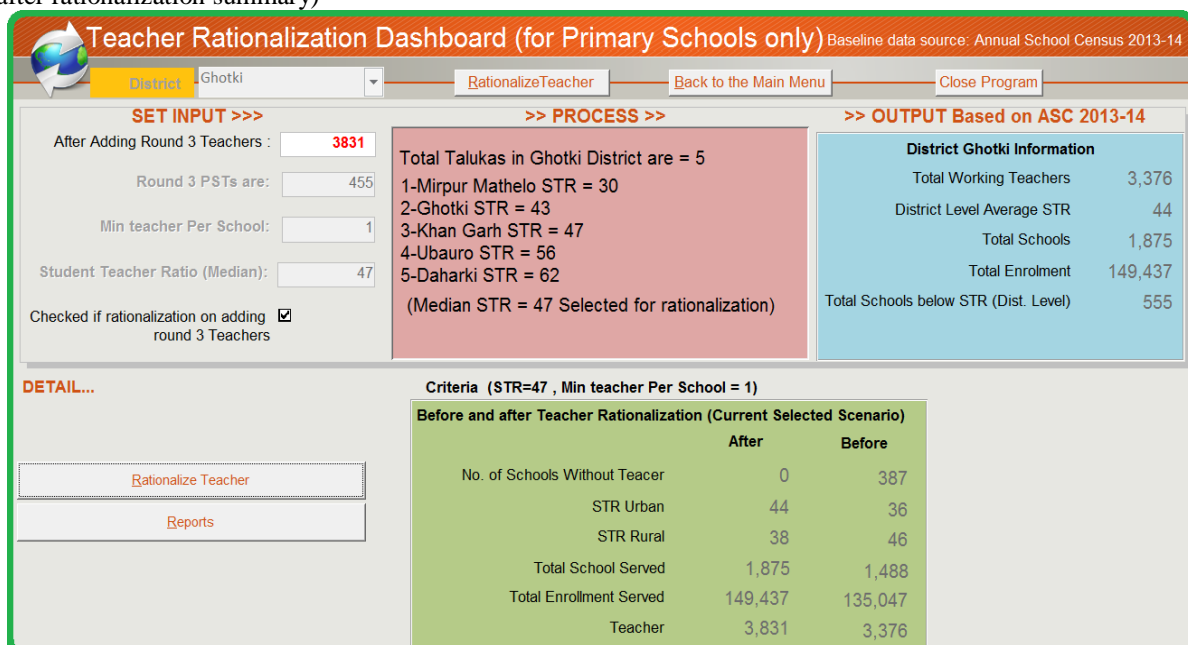
V.i.   Steps 5&6 calculate Student and Teachers' Ratio -STR for each Taluka and median STR for further rationalization

The following table-05 generated from dashboard reports which shows intra-district gap in Taluka Level STRs. High STR reported in Daharki Taluka (District Ghotki) and Low STR in Gulberg Town (Karachi City). However, the major gaps between Talukas found in two districts 1-Sukkur (Taluka SukkurSTR=17 and Salehpat has STR=58 the gap is 109% (41)). Detailed are mentioned in table 05.

Table -05

S. No.	District	No. of Talukas	Minimum STR		Maximum STR		median STR for rationalization	Gap
			Taluka / Town Name	STR	Taluka / Town Name	STR		
	Sindh	**121**	**Gulberg Town**	**11**	**Daharki**	**62**	**32**	
1	Badin	5	Matli	31	TandoBago	44	37	13
2	Dadu	4	Dadu	35	Mehar	48	43	13
3	Ghotki	5	Mirpur Mathelo	30	Daharki	62	44	**32**
4	Hyderabad	4	Hyderabad City	16	Hyderabad	32	21	16
5	Jacobabad	3	Jacobabad	36	GarhiKhairo	40	38	4
6	Jamshoro	4	Sehwan	32	Manjhand	42	34	10
7	Kambar-Shahdadkot	7	Naseerabad	28	SijawalJunejo	52	41	**24**
8	Karachi City	18	Gulberg Town	11	Bin Qasim Town	32	20	**21**
9	Kashmore	3	Kandhkot	38	Tangwani	44	41	6
10	Khairpur Mirs	8	KotDiji	32	Sobhodero	54	37	**22**
11	Larkana	4	Larkana	31	Rato Dero	37	33	6
12	Matiari	3	Hala	22	Mitiari	35	27	13
13	Mirpur Khas	6	Digri	22	Sindhri	46	29	**24**
14	NausheroFeroze	5	Moro	30	Bhirya	40	33	10
15	Sanghar	6	Shahdadpur	24	Jam Nawaz Ali	41	27	17
16	Shaheed Benazirabad	4	Nawab Shah	27	Daur	42	35	15
17	Shikarpur	4	Lakhi	31	Khanpur	37	32	6
18	Sukkur	5	Sukkur	17	Salehpat	58	34	**41**
19	Tando Allah Yar	3	Tando Allah Yar	32	Jhando Mari	49	40	17
20	Tando Muhammad Khan	3	T. Muhammad Khan	24	Tando Ghulam Hyder	40	31	16
21	Tharparkar	4	Chachro	34	Nagarparkar	38	36	4
22	Thatta	9	KetiBundar	28	Ghorabari	39	30	11
23	Umerkot	4	Umerkot	25	Samaro	39	29	14

[8]

V.j. Steps 7,8 and 9 Adding round 3 Teachers, rationalization teachers and generate before and after report: **The two best districts where no gap between rural & urban (U&R) STR, 1=Umerkot U&R STR was 29 and 2=Thatta where U&R STR was 30. Two worst Districts where a major gap between urban (U) &rural (R) STR observed, 1= Tando Allah Yar, STR gap was 61% (22)[U=25 & R=47] and2-T. Muhammad Khan STR gap 64% (17)[U=18 &R=35]. Before Rationalization U&R gap rage was -2 to 22 after rationalization, gap range will be -10 to 4 as listed in details at table 06.**

Table-06

DISTRICT	Schools	Enr.	Tch.	Sorted Dist. Avg STR	Median STR for rational.	Before Renationalization Location Urban STR	Rural STR	No. of Schools without Teachers	Total Schools Below STR	Adding Round 3 Teachers	After Rationalization Location Urban STR	Rural STR	No. of Schools without Teachers	District STR
Karachi City	2308	237000	11844	20	20	19	26	191	186	555	19	18	0	19
Hyderabad	779	75233	3588	21	18	17	32	41	52	160	19	23	0	20
Matera	882	63282	2335	27	25	20	29	98	251	141	25	26	0	26
Sanghar	2837	169316	6314	27	26	22	28	420	818	183	26	26	0	26
Mirpur Khas	1976	101964	3480	29	34	18	34	430	440	362	31	26	0	27
Umerkot	2150	74370	2563	29	34	29	29	674	986	775	30	21	0	22
Thatta	3051	127726	4239	30	31	30	30	758	788	332	26	28	0	28
T. Muhammad Khan	976	41754	1339	31	37	18	35	265	305	232	34	26	0	27
Shikarpur	1199	98471	3050	32	32	28	34	362	104	190	32	30	0	30
Larkana	1048	144119	4346	33	34	29	35	32	100	976	31	26	0	27
Naushero Feroze	2178	156555	4719	33	32	22	36	355	435	556	31	30	0	30
Jamshoro	745	53233	1565	34	34	32	36	2017	189	173	34	29	0	31
Sukkur	1123	95256	2831	34	36	26	38	193	261	119	35	31	0	32
Shaheed Benazirabad	2471	147856	4271	35	36	23	38	624	483	704	34	29	0	30
Tharparkar	3751	132653	3714	36	36	23	36	1285	1227	841	38	29	0	29
Badin	2886	130746	3582	37	37	28	38	762	1221	562	35	31	0	32
Khairpur Mirs	3140	193183	5250	37	36	28	38	491	1031	818	35	32	0	32
Jacobabad	1368	138082	3620	38	39	33	40	107	206	185	38	36	0	36
Tando Allah Yar	722	46841	1159	40	48	25	47	162	269	82	46	36	0	38
Kambar-Shahdadkot	1519	142814	3476	41	47	37	42	320	270	408	44	35	0	37
Kashmore	1393	83573	2017	41	41	43	41	315	517	411	37	34	0	34
Dadu	1965	199360	4685	43	46	34	45	305	423	460	45	38	0	39
Ghotki	1875	149437	3376	44	47	36	46	387	555	455	44	38	0	39

[9]   Enrl.=Enrolment, Tch.=Teachers, Dist. = District, Avg.=Average, rational.=Rationalization

V.k.   Step 10 District Wise and Overall Province Demand Of Primary School Teachers (PST): After adding round three primary teachers appointment (PSTs) and rationalization of teachers only five districts observed above STR 35 and only 1,440 PST teachers are required (for primary schools only)to maintain a 1:35 ratio as detailed in table 07.

Table -07

DISTRICT	Schools	Enrolment	Teachers (ASC 2013-14)	Adding Round Three PSTs (Flag-F)	Total Teachers	STR	Required More Teachers to maintain 1:35 Ratio
Jacobabad	1368	138082	3620	185	3805	36.29	145
Tando Allah Yar	722	46841	1159	82	1241	37.74	100
Kambar-Sdkot	1519	142814	3476	408	3884	36.77	200
Dadu	1965	199360	4685	460	5145	38.75	555
Ghotki	1875	149437	3376	455	3831	39.01	440
						Total	**1440**

[9]

V.l. Steps for implementation of Teacher rationalization at Primary Schools Level in Sindh:
It is proposed that education department share the credentials and user guide of a dashboard with all District Education Officers (DEOs) along with the directives for district administration to compliance in stipulated time and no more closed schools remained in their district and adherence to the following steps at district & Taluka Level. Moreover, it will be more impactful if the Department accomplish this exercise before the start of the academic session and also locked all transfers and postings for at least the next one year.
Step 1: District Education Officer (DEO) will call a meeting of all Taluka Education Officer (TEOs) and handover the list of schools generated through Dashboard.
Step 2: in the first phase, for the rationalization, TEOs will develop a plan to visit all schools in a month's time and on the visit s/he fills the following indicators at least. from step 2, after reshuffling (transfer/posting) within the taluka, TEO will submit the report to DEO with anyone from following three possible outputs (Possible outputs: 1- Taluka is rationalized with a list of surplus teachers. 2-Taluka is rationalized and no excess teacher, and 3- Taluka is rationalized except few schools where teachers yet to be posted, a list of schools with number of teachers required).

Table -08: Check List Details

S.No	Taluka	SEMIS Code	School Name	Current Enrolment	Current Teachers	Based on 41 STR # of a teacher required	How many teachers transferred / posted	Evidence (transfer order required)
1	T1	9 digit id	abc	100	5	3	2 Transferred	Date:__ order no:
2	T1	9 digit id	xyz	100	2	3	1 posted	Date:__ order no:

<u>Step 3</u>: In the second Phase, all surplus teachers will be in a pool from where District Education Officer (DEO) will transfer as per the talukas' requirement.

<u>Step 4</u>: Finally, District Education Officer (DEO) will send the complete report to the department along with the demand of Teachers (if any)

Table-09
Post wise Teachers reported in
Annual School Census (ASC)

Type of Post	Teachers
Government Regular	136,498
Government Contract	4,127
Subtotal Government Teachers	**140,625**
SMC	82
NCHD	2,490
ESRA	23
UNICEF	156
Other Donor	637
Volunteer	824
Not Provided	601
Subtotal Non-Government Teachers	**4,813**
Overall Teachers Reported	**145,438**

[10]

After applied Government School Filter, only 140,625 Teachers were remaining in the dataset and using the same for a further filter. It is predicted that in 2015 above 60 years 2,611 Teachers eliminated. After the filtration process, the dataset had 138,014 records for further filtration dataset total of 50,651 teachers found in post-primary schools and eliminated. After the filtration, the dataset had 87,363 records for further rationalization of teachers as per need. The district wise result details of Sindh province is mentioned in table 10 and tulka wise situations analysis is examined and mentioned in table 11.i, 11.ii and11 iii.

Table-10

S. No	Region	District S No.	District	Total Vacancies	Total Offers Order issued	Total Appointment orders Issued	Vacant	Pending	issued , Vacant & Pending Total
			Primary School Teacher (PST) Appointment status						
1	Hyderabad Region	1	Badin	**750**	562	539	188	0	750
2		2	Dadu	**460**	460	436	0	0	460
3		3	Hyderabad	**190**	160	120	0	30	190
4		4	Jamshoro	**215**	173	166	42	0	215
5		5	TandoAllahyar	**82**	82	74	0	0	82
6		6	Matiari	**151**	141	94	6	4	151
7		7	Thatta	**657**	332	320	325	0	657
8		8	T. Muhammad Khan	**358**	232	180	126	0	358
9		9	S. Benazirabad	**974**	704	491	262	8	974
10	Sukkur Region	10	Sukkur	**146**	119	90	27	0	146
11		11	Ghotki	**524**	455	343	69	0	524

12		12	Khairpur	**917**	818	623	73	26	917
13		13	NaushahroFeroze	**702**	556	360	24	122	702
14		14	Jacobabad	**185**	185	137	0	0	185
15	Larkana Region	15	Kamber&ShahdadKot	**444**	408	332	0	36	444
16		16	Kashmore&Kandkot	**469**	411	358	13	45	469
17		17	Shikarpur	**195**	190	139	0	5	195
18		18	Larkana	**988**	976	772	0	12	988
19		19	Mirpurkhas	**420**	362	322	36	22	420
20	MirpurKhas Region	20	Sanghar	**184**	183	144	0	1	184
21		21	Tharparkar	**1172**	841	731	326	5	1172
22		22	Umerkot	**925**	775	737	150	0	925
23	Karachi Region	23	Karachi	**1057**	555	282	502	0	1057
			Grand Total	**12165**	**9680**	**7790**	**2169**	**316**	**12165**

[10]

Table -11 (i, ii and iii)

In-depth analysis of District Ghotki before and after rationalization

11.i. Taluka wise student teachers ratios –STR- Before and after rationalization (adding round 3 Teachers)

Taluka	Enrolment	Before Rationalization		After Rationalization and adding round 3 Tch.	
		Teachers	STR	Teachers	STR
Mirpur Mathelo	29523	**976**	30	807	36.58
Ghotki	47125	**1104**	43	1135	41.52
Khan Garh	13343	**281**	47	349	38.23
Ubauro	31717	**565**	56	791	40.10
Daharki	27729	**450**	62	749	37.02
Overall	**149,437**	**3,376**	**44**	**3,831**	**39.01**

11.ii.Before and after Rationalization (without adding round 3 PST Teachers) - Staff reshuffling

Taluka	Before Rationalization Primary Schools Teachers	After Rationalization (without adding round 3 PST Teachers)	Teacher Shifted (Reshuffle)
Ubaro	565	**694**	129
Mirpur Mathelo	976	**697**	-279
Khan Garh	281	**294**	13
Ghotki	1104	**1027**	-77
Daharki	450	**664**	214
Total	**3,376**	**3,376**	

11iii.Before and after Rationalization (adding Round 3 PST Teachers) – Staff reshuffling

Taluka	Before Rationalization Primary Schools Teachers	After adding Round 3 PST Teachers and Rationalization	Teacher Shifted (Reshuffle)
Ubaro	565	**791**	226
Mirpur Mathelo	976	**807**	-169
Khan Garh	281	**349**	68
Ghotki	1104	**1135**	31
Daharki	450	**749**	299
Total	**3,376**	**3,831**	

[10]

VI. CONCLUSIONS AND POLICY RECOMMENDATIONS:

The Primary school teachers placement in Sindh-Pakistan is examined in detail with modern tools and techniques as per global standards of 35/01, thirty-five students per teacher' in the classroom to enhance the quality of the education in the region and to save the limited resources of the national exchequer. It is concluded that out of the overall placement of teachers in the primary schools of Sindh-Pakistan is improper and against the basic ethics of human resource management criteria designed and accepted globally. The Teacher-Student Ratio is higher in the case of urban centers placement and lowest in rural and far-flung areas. The feasible recommendations regarding the challenge of rationalization of the teachers are important to implements in the larger context of human resources management challenges in the public sector schools of the Sindh region. The standard ratio or per school minimum teacher(s) requirement (For primary Schools) Government should provide at least one teacher to all viable schools and add teachers as per standard ratio i.e. one teacher for 35 students as discussed and mentioned above. This is the need of the hour to mobilize the teachers serving in urban centers to rural areas to save the economic /financial resources of the country and also introduce the efficient use of available human resources which can reduce the burden on the national exchequer and also leads efficiency for improvement in the quality of education for all human in greater literacy and development interest for long term sustainable educational and economic growth. In addition to the situations created by COVID19, the government should develop a multi-stage resilient plan through that learners can continue their education, even in smart lockdown areas. Distance learning solutions can be implemented where ever, they are more successful in the urban areas comparatively in rural. Also, there are other multiple factors that need to be considered while running online classes, extensive teachers' training, and equipment, internet connectivity, voice quality and activities to understand the topic, electricity, poverty and parental literacy as well as awareness toward technology which has an impact on online classes/ education.

REFERENCES

[1]. UNESCO (2020), https://en.unesco.org/news/1.3-billion-learners-are-still-affected-school-university-closures-educational-institutions Accessed 04/20
[2]. Statistics, P. E. (2016). Statistics 2016-2017. National Education Management Information System (NEMIS): Academy of Education Planning and Management (AEPAM), Government of Pakistan.
[3]. Sindh-EMIS, (2016-17). Sindh Education Profile Karachi: Reform Support Unit (RSU), School Education & Literacy Department (E&LD) Government of Sindh (GoS)
[4]. UNDP: Human Development Report, 2019 (The latest available report)
[5]. Pakistan Social and Living Standards Measurement (PSLM), 2018.
[6]. The Annual Status of Education Report (ASER) Pakistan Annual Report 2019.
[7]. Pakistan Economic Survey 2020, (PP.197). Islamabad
[8]. Sindh-EMIS, S. E. (2011-12). Sindh Education Profile 2011-12. Karachi: Reform Support Unit (RSU), School Education & Literacy Department (E&LD) Government of Sindh (GoS).
[9]. Sindh-EMIS, S. E. (2012-13). Sindh Education Profile 2012-13. Karachi: Reform Support Unit (RSU), School Education & Literacy Department (E&LD) Government of Sindh (GoS).
[10]. Sindh-EMIS, S. E. (2013-14). Sindh Education Profile 2013-14. Karachi: Reform Support Unit (RSU), School Education & Literacy Department (E&LD) Government of Sindh (GoS).

Corresponding Author: [1]Dr.Hamzo Khan Tagar
[1]Director Public Private Partnership Node, School Education &Literacy Department,
Government of Sindh, Karachi Pakistan.