

# The Association Between Migrant Worker, Schools, and Shopping Malls Factors in Thailand's Metropolitan Provinces and the Newest Covid-19 Epidemic

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**Abstract:-** This study focused on interrelationship studies. The objective of this research is to explore the association between migrant worker factors, the number of schools, and the number of shopping malls in Thailand's metropolitan areas and the newest Covid-19 epidemic. Thailand's metropolitan areas; Nonthaburi, Pathum Thani, Nakhon Pathom, Samut Prakan, and Samut Sakhon province are all on the periphery of Bangkok served as the study's focus. There are five province. Secondary data from government organizations, such as migrant worker factors, the number of schools, the number of shopping malls, and the newest Covid-19 epidemic. Statistics such as mean, percentage, frequency, and standard deviation were employed. Using correlation statistics, determine the association between the variables. This research was carried out between January and June of 2021.

The study's findings revealed that the migrant worker factor was significantly associated with the newest Covid-19 epidemic, at the level of 0.01, and in the same direction as the association, at a high level ( $r=0.965$ ). The number of schools was significantly associated with the newest Covid-19 epidemic at a level of 0.01, and at a high level ( $r=-0.981$ ) in the inverse direction. Despite the fact that the number of shopping malls has nothing to association with the newest Covid-19 epidemic. Recommendations should be made in order to properly control and avoid the development of Covid-19. Furthermore, studies on complex factors, such as social determinants, that may be variables that support the spread of Covid-19 should be done. Participation in

**strong health networks, as well as direct and indirect environmental effects.**

**Keywords:-** Migrant Worker, Schools, Shopping Malls, The Newest Covid-19.

## I. INTRODUCTION

The novel coronavirus (COVID-19) is a new strain that has never been discovered in humans. The coronavirus (CoV) is a virus that can cause illnesses ranging from the common cold to serious illnesses.[1] The Covid-19 epidemic has caused an enormous economic shock in India. The economy was already in a shambles when Covid-19 hit. With the extended country-wide lockdown, global economic slump, and accompanying disruption of demand and supply networks, the economy is expected to experience a lengthy period of decline. The amount of the economic damage will be determined by the length and severity of the health crisis, the duration of the lockdown, and how the scenario evolves once the lockdown is removed.[2] There were 51,730 infected patients in Thailand during the previous two weeks (22 May-5 June 2021), with 24.90% having a history of close contact with confirmed cases and 14.61% contracting the disease in communities. They had a history of living in the communities or neighborhoods where the reported infected patients lived, such as condos and townhomes. Active surveillance and proactive case detection in epidemic areas led to the discovery of some of them. Thailand reported 179,886 cumulative confirmed cases as of 7 June 2021, according to the Coronavirus 2019 monitoring system. On 7 June 2021, there were 2,419 new cases, 1,347 of which were from local

transmission. There have been 33 new deaths. The overall number of new cases each day has consistently exceeded 2,000. Outbreaks have occurred in industries and crowded marketplaces, particularly in Bangkok and nearby areas. It is recommended that all provinces maintain aggressive case discovery in high-risk regions such as prisons, marketplaces, institutions, and highly inhabited regions.[3]

An examination of the literature revealed much more research that was relevant. In early April 2020, Singapore saw a significant increase in the number of new COVID-19 cases every day. The majority of the incidents were reported among an estimated 295 000 low-skilled migrant workers living in foreign workers' dormitories. As of 6 May 2020, there were 17 758 verified COVID-19 infections among dormitory employees. Personnel in dormitories were subjected to thorough testing, segregation of healthy and infected workers, and regular monitoring for fever and symptoms. Residents were confined for 14 days to twenty-four dorms designated as "isolation areas." New housing has been given, such as abandoned public housing flats, military barracks, exhibition centers, and floating hotels, allowing for adequate social separation.[4] Every year, migrant laborers contribute around USD15 billion to the Bangladeshi economy, directly contributing to the country's socioeconomic progress. Due to the effects of COVID-19 in their host countries, a considerable number of migrant workers have been taken back to Bangladesh, and many are always afraid of being taken back.[5] Every country on the globe has been profoundly affected in various ways. As a precautionary measure, the only lockdown was implemented due to a delay in the antidote for a virus. Where migrant laborers were predominantly employed, host nations or nations faced several obstacles. Migrant workers lost their jobs, salaries, access to food and health care, and faced unanticipated travel costs as a result of the lockdown. This crisis is having a profound effect not just on the economy, but also on people's psychological well-being. [6]

According to a literature analysis, there is a need to investigate the relationship between migrant worker factors, the number of schools, and the number of shopping malls in Thailand's metropolitan areas and the most recent Covid-19 pandemic. The goal of this study is to investigate the relationship between migrant worker factors, the number of schools, and the number of department malls.

## II. METHOD

This is an analytical study. The purpose of this study was to look at the association between migrant worker factors, the number of schools, and the number of shopping malls in Thailand's metropolitan areas and the most recent Covid-19 epidemic. This study was carried out between

January to June of 2021. The situation was discovered in January 2021 as a result of proactive screening at two factories with about 4,000 employees in Samut Sakhon. The majority of the patients with Covid-19 discovered at this time were migratory laborers. Nonthaburi, Pathum Thani, Nakhon Pathom, Samut Prakan, and Samut Sakhon province are all on the periphery of Bangkok, making it a fascinating place to study. Secondary data from government organizations, such as migrant worker factors, the number of schools, the number of shopping malls, and the most current Covid-19 epidemic. In order to use the data in the research, studies were conducted in Nonthaburi, Pathum Thani, Nakhon Pathom, Samut Prakan, and Samut Sakhon provinces, which are all on the outskirts of Bangkok. The mean, percentage, frequency, and standard deviation were the statistics employed. Determine the association between the variables using correlation statistics. We're looking at interconnections based on research objects to help us develop a far more effective Covid-19 control and prevention strategy. It is linked to the research results of the latest Covid-19 pandemic. Migrant laborers have lost their employment, income, and access to food and health care.[7] Wuhan City Epidemic Control Center The most effective way to manage Covid-19 is to lock down areas where it may spread. All public venues, including shopping malls, schools, restaurants, and movie theaters, were shuttered, and food, medication, and medical supplies were evenly deployed and given to all inhabitants by community committee employees.[8]

## III. RESULT

The following metropolitan provinces have a migrant worker population, according to the findings: Figure 1 and 3 displays the migrant worker population of Samut Sakhon province, which was 222,548 people, Samut Prakan province, which was 128,415 people, Pathum Thani province, which was 112,710 people, Nonthaburi province, which was 88,637 people, and Nakhon Pathom province, which was 80,784 people. According to the statistics, as of January 5, 2021, the following metropolitan provinces had the highest number of Covid-19 cases: Figure 2 and 6 reveals that the province of Samut Sakhon had 19,847 instances, the province of Samut Prakan had 7,473 cases, the province of Nonthaburi had 6,184 cases, the province of Pathum Thani had 4,160 cases, and the province of Nakhon Pathom had 1,555 instances. The findings suggest that the following provinces had the most shopping malls: Pathum Thani province had 19, Nonthaburi province and Samut Prakan province had 16, Nakhon Pathom province had 10, and Samut Sakhon province had 6, as seen in Figure 4 and 8. According to the findings, Nakhon Pathom province had 344 schools, Pathum Thani province had 318 schools, Samut Prakan province had 302, Nonthaburi province had 269, and Samut Sakhon province had 102, as shown in Figure 5 and 7.

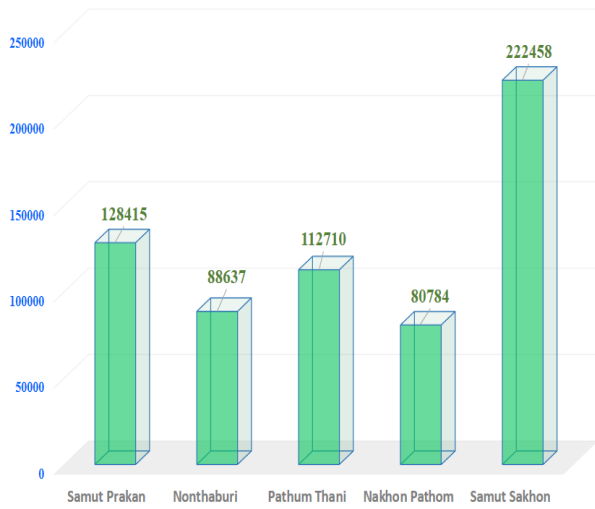


Figure 1; The migrant worker

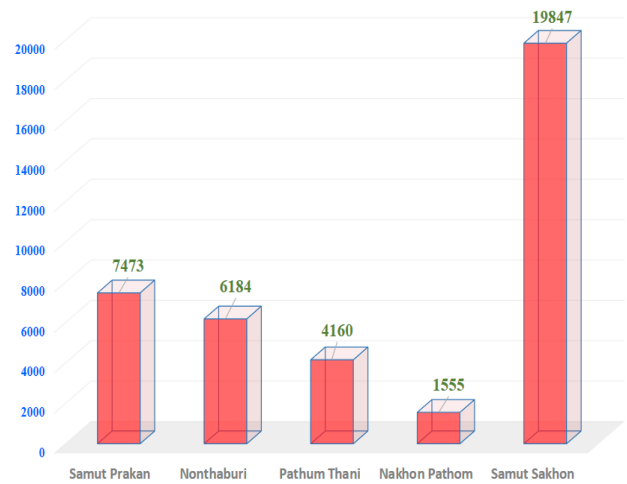


Figure 2; Covid-9 cases

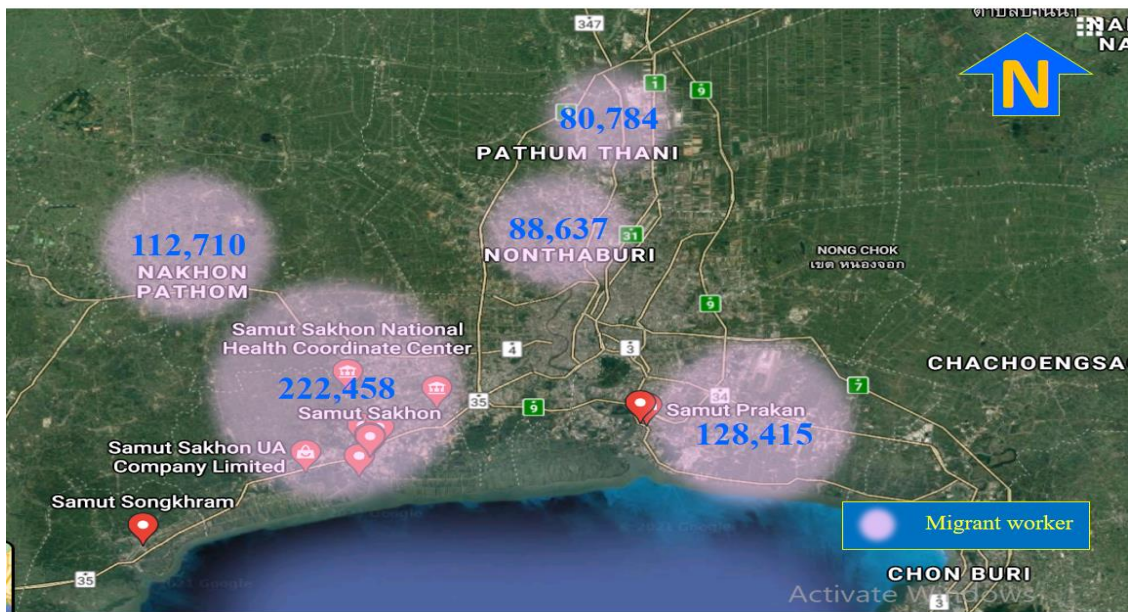


Figure 3; The migrant worker

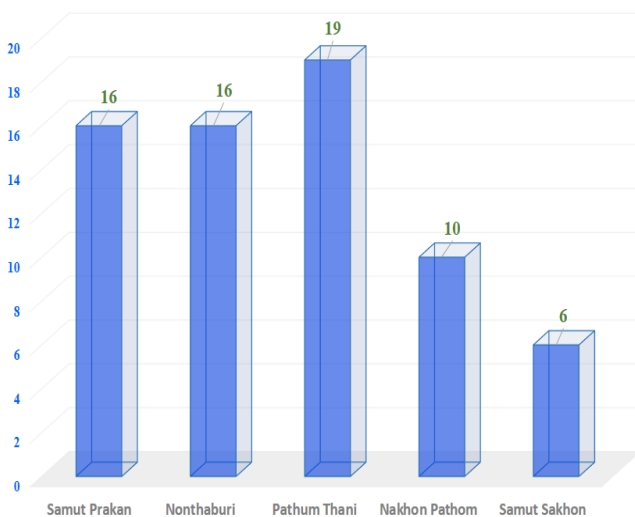


Figure 4; The number of shopping malls

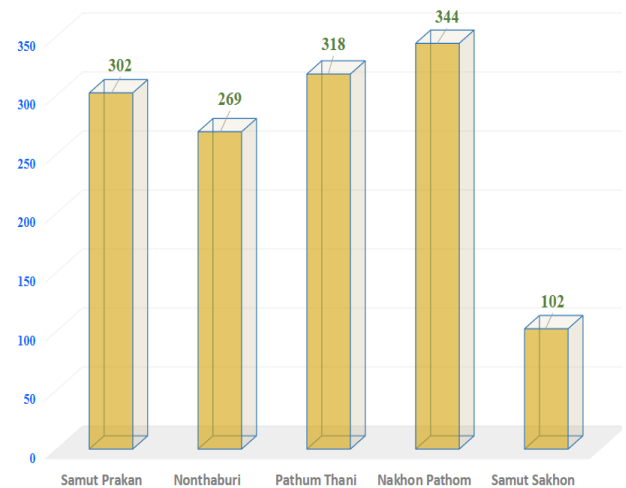


Figure 5; The number of schools



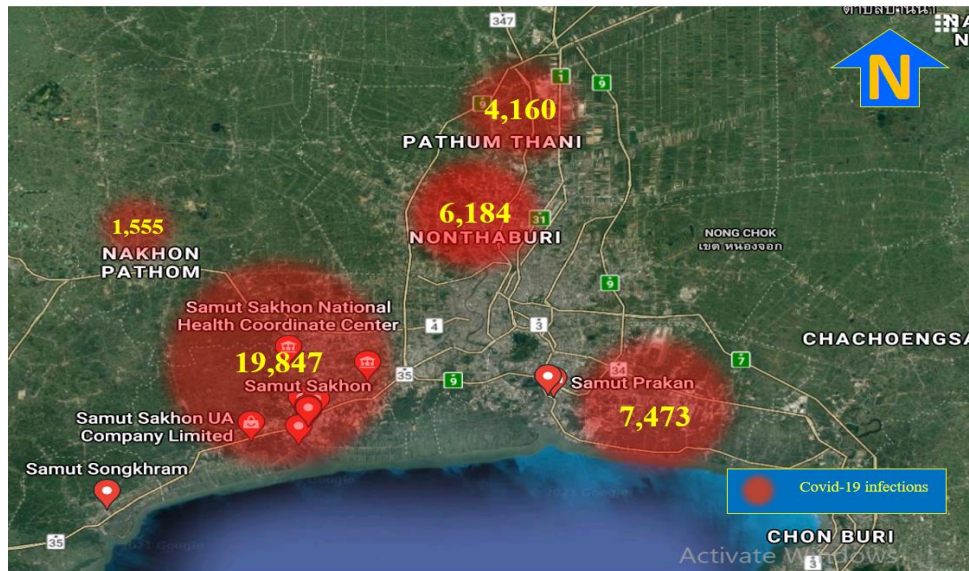


Figure 6; Covid-19 cases

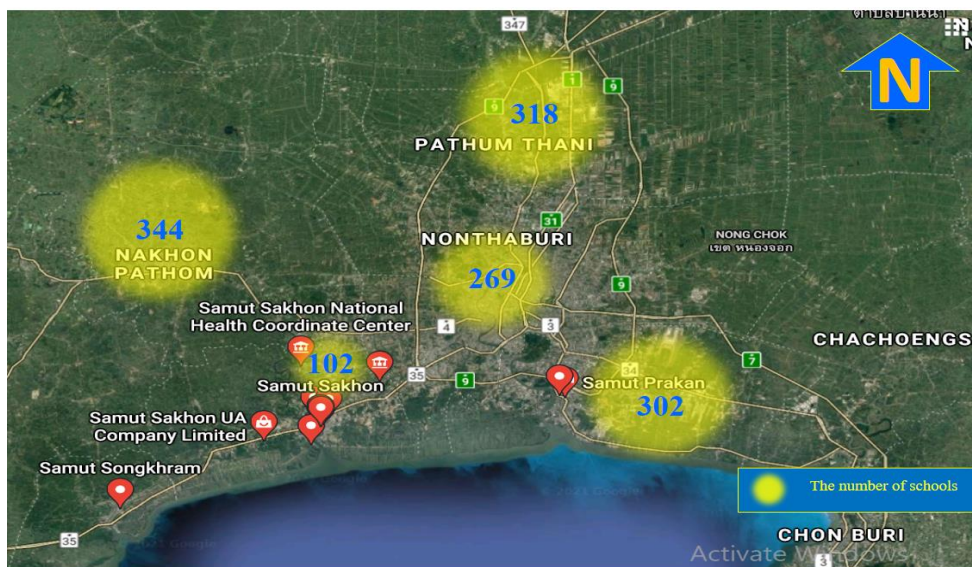


Figure 7; The number of schools

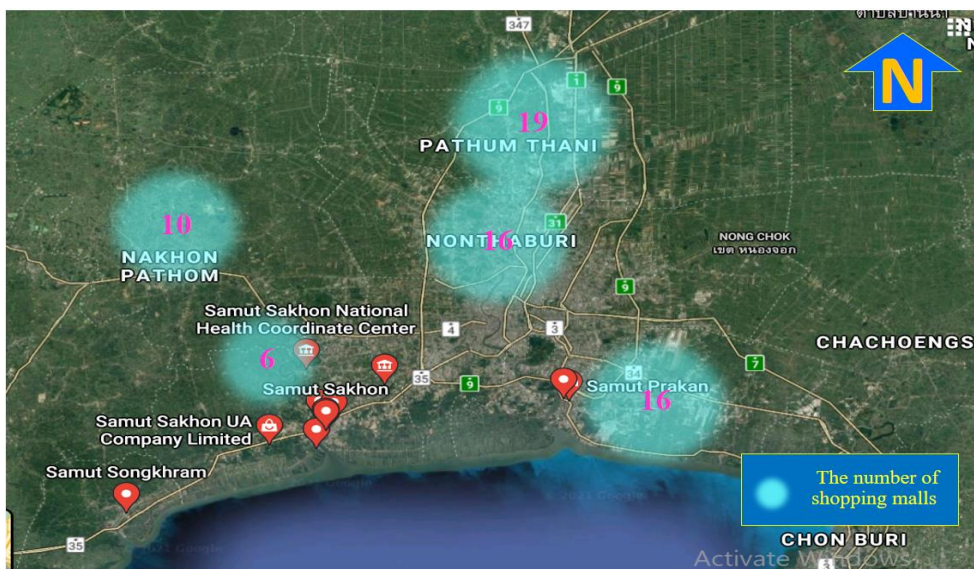


Figure 8; The number of shopping malls

**Table 1.** Illustrates the correlation between migrant worker, schools, and shopping malls factors in Thailand's metropolitan provinces and the newest Covid-19 epidemic

Factors	Covid-19 cases		
	Pearson Correlation(r)	Sig. (2-tailed)	Relationship level
<b>Migrant worker</b>	0.965	0.008*	High-level relationships
<b>The number of schools</b>	-0.981	0.003*	Inverse high-level relationships
<b>The number of shopping malls</b>	-0.626	0.259	No relationships

Using correlation statistical analysis to identify the link from table 1, the migrant worker factor was significantly associated with the newest Covid-19 epidemic, at the level of 0.01, and in the same direction as the association, at a high level ( $r=0.965$ ). The number of schools was significantly associated with the newest Covid-19 epidemic at a level of 0.01, and at a high level ( $r=-0.981$ ) in the inverse direction. Despite the fact that the number of shopping malls has nothing to association with the newest Covid-19 epidemic.

#### IV. CONCLUSION AND DISCUSSION

The study's findings revealed that the migrant worker factor was strongly correlated with the newest Covid-19 epidemic, at a level of 0.01, and in the same direction as the association. This might be attributed to the huge number of migrant workers. There will be several issues if there is no strong and attentive management strategy in place. These include housing issues, population density, epidemic issues (vaccination of employees in various nations), and even the existence of undocumented immigrant employees. All of the above are both direct and indirect risk factors for the emergence of a new Covid-19 epidemic. Consistent with to return or stay? the gendered impact of the Covid-19 pandemic on migrant workers in China. These findings contribute to the body of knowledge about the economic vulnerabilities of Chinese migrant workers. More crucially, the data shows that the Covid-19 epidemic has slowed the progress gained in advance of the pandemic in expanding Chinese rural women's labor-force participation.[9] According with impact of risk perception on migrant workers' employment choice during the Covid-19 epidemic. According to the findings, farmers usually assume that the risk of epidemics is higher in urban regions than in rural regions. Farmers' risk perceptions have a substantial impact on their choice to labor outside of their hometowns. This work has important policy implications for both labor supply and crisis management.[10]

At a level of 0.01, the number of schools was significantly associated with the current Covid-19 pandemic, and at a high level ( $r=-0.981$ ) in the inverse direction. The findings might be attributed to the presence of a significant number of educational institutions or schools, as well as excellent Covid-19 control and preventive methods. Areas

with a smaller number of educational institutions or schools, on the other hand, may not apply the early Covid-19 control and preventive targets, which might pose a risk and cause Covid-19 outbreaks. According with the impact of school reopening on the spread of Covid-19 in England. This research suggests that, while any school reopening will result in greater mixing and infection among children and the general population, reopening schools alone in June 2020 is unlikely to have this effect.[11] The Covid-19 epidemic: teachers' responses to school closure in developing countries. This essay examines Afghanistan, Libya, and Palestine as developing nations that had experienced violence for many years previous to the Covid-19 issue. It focuses on how middle school instructors reacted to school closures in order to combat the spread of Covid-19.[12].

To successfully manage and avoid the development of Covid-19, however, timely action routines must be created. Furthermore, research into complex elements that may be variables that encourage the spread of Covid-19, such as societal variables, should be conducted. Participation in robust health networks, as well as direct or indirect environmental effects.

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#### REFERENCES

- [1]. World Health Organization. Coronavirus (Thailand) [Internet]. Ministry of Public Health, Thailand; 2021 [cited 2021 Jan 25]. Available from: <https://www.who.int/thailand/health-topics/corona-virus>
- [2]. Dev SM, Sengupta R. Covid-19: Impact on the Indian economy. Indira Gandhi Institute of Development Research, Mumbai April. 2020 Apr.
- [3]. Department of Disease Control, Ministry of Public Health. Corona Virus Disease (COVID-19) [Internet]. Ministry of Public Health, Thailand; 2021 [cited 2021

- Jun 12]. Available from: <https://ddc.moph.go.th/viralpneumonia/eng/situation.php>
- [4]. Koh D. Migrant workers and COVID-19. *Occupational and environmental medicine*. 2020 Sep 1;77(9):634-6.
- [5]. Karim MR, Islam MT, Talukder B. COVID-19' s impacts on migrant workers from Bangladesh: In search of policy intervention. *World Development*. 2020 Dec 1;136:105123.
- [6]. Mahore S. COVID-19 Crisis through the Lens of Migrant Worker: An Indian Perspective. *COVID-19: The New Economics for Economies*. 2020:97.
- [7]. Mahore S. COVID-19 Crisis through the Lens of Migrant Worker: An Indian Perspective. *COVID-19: The New Economics for Economies*. 2020:97.
- [8]. Zhang N, Cheng P, Jia W, Dung CH, Liu L, Chen W, Lei H, Kan C, Han X, Su B, Xiao S. Impact of intervention methods on COVID-19 transmission in Shenzhen. *Building and environment*. 2020 Aug 1;180:107106.
- [9]. Yueping S, Hantao W, Xiao-yuan D, Zhili W. To Return or Stay? The Gendered Impact of the COVID-19 Pandemic on Migrant Workers in China. *Feminist Economics*. 2021 Apr 3;27(1-2):236-53.
- [10]. An H, Sun X. Impact of risk perception on migrant workers' employment choice during the COVID-19 epidemic. *The Chinese Economy*. 2021 Feb 25:1-7.
- [11]. Keeling MJ, Tildesley MJ, Atkins BD, Penman B, Southall E, Guyver-Fletcher G, Holmes A, McKimm H, Gorsich EE, Hill EM, Dyson L. The impact of school reopening on the spread of COVID-19 in England. *Philosophical Transactions of the Royal Society B*. 2021 Jul 19;376(1829):20200261.
- [12]. Khlaif ZN, Salha S, Affouneh S, Rashed H, ElKimishy LA. The Covid-19 epidemic: teachers' responses to school closure in developing countries. *Technology, Pedagogy and Education*. 2020 Dec 24:1-5