

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics (FEM)



Bachelor Thesis

**Consequences of the post-pandemic on the education
system of Turkey: A case analysis of Turkish students**

Simay Goze Erdinc

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BACHELOR THESIS ASSIGNMENT

Simay Goze Erdinc

Business Administration

Thesis title

Consequences of the post-pandemic on the education system of Turkey (case study "Turkish students")

Objectives of thesis

The main goal of this thesis is to understand the extent of the negative consequences caused by the recent outbreak of the coronavirus. The author wants to assess the degree of recently caused economic, social and cultural drawbacks, which directly affect a lot of Turkish students not only in Turkey but also those, who are actively studying abroad. The ultimate goal is to draw a conclusion on how much the pandemic has deeply changed the life not only of Turkish students and if the changes will be constant or if it is possible to predict a return to a situation before the pandemic.

Methodology

The work itself is split into two different parts, which are theoretical and practical, respectively.

The information in this B.Sc. thesis will be collected from relevant and published scientific articles, periodicals, and papers in English and will be analyzed and compared with the official data of the UN and government organizations.

The used internet databases will be Web of Science, Science Direct, Google Scholar...etc. Also, relevant and published books related to the topic will be helpful. The B.Sc. thesis will rely on previously collected data and information, the same as the author's own experience from the region.

The theoretical part covers the background behind the pandemic phenomenon and Turkey's national educational framework and describes popular destinations (states) amongst Turkish students who were or are studying abroad.

In addition, the author also wants to gain insight into why students leave the country and whether it was done due to the virus outbreak.

To do so, the author wants to conduct a series of interpersonal interviews with Turkish students who have been studying abroad before and after the pandemic and look at what changes they felt in their studies and their lives before and after the outbreak of the pandemic.

Finally, the author also wants to perform an analysis that will reflect how the pandemic affected Turkey's national education framework.

The data from the post-COVID affords an utterly unique possibility to evaluate how worldwide crises re-shape academic tendencies and pupil mobility students. Understanding the post-pandemic panorama will offer precious insights into the destiny trajectory of Turkish college students analyzing study abroad and making their view of how should look like the new education system in Turkey in the future.

The interview data will be summarized, and the outputs will be processed in the SWOT form.



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40 – 60 pages

Keywords

post-pandemic, education, economy, Turkey

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The Bachelor Thesis Supervisor

doc. Ing. Vladimír Krepl, CSc.

Supervising department

Department of Economics

Electronic approval: 21. 2. 2024

prof. Ing. Lukáš Čechura, Ph.D.

Head of department

Electronic approval: 27. 2. 2024

doc. Ing. Tomáš Šubrt, Ph.D.

Dean

Prague on 15. 03. 2024

Declaration

I declare that I have worked on my bachelor thesis titled "Consequences of the post-pandemic on the education system of Turkey (case study "Turkish students") by myself and I have used only the sources mentioned in the thesis. Being the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on 15.03.2024

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I would like to express my sincere thanks and warm regards to my professor under whose supervision I was able to complete my study and gain deeper learning. I am extremely grateful for his expertise guidance and advice that enabled me to cross every stage of writing this project effectively.

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In the end, I would present my heartfelt gratefulness towards all the people who have directly and indirectly supported the successful completion of the research.

Consequences of the post-pandemic on the education system of Turkey (case study "Turkish students")

Abstract

The aim of the study is to evaluate the consequences of post covid-19 pandemic on the education system of Turkey and Turkish students studying in Turkey and abroad. The study has been conducted to analyze the factors that have affected the learning structure and behavior among the students and the elements that have caused negative impact on the students due to economic shut down and restriction on movements as measures to control the outbreak of covid-19 and minimize the damages to human community. Education sector is one of the significant sectors which affect the economic, social and cultural development of a nation. Likewise, these factors also have influencing effect on the development of education sector.

In the study an analysis has been made on the consequences faced by Turkish students within and outside country due to post covid-19 pandemic along with the analysis of impact on Turkish education system. The government measure undertaken to curb covid-19 spread has resulted into economic loss. Students and children are among the group who have been affected severely due to government measures, social and cultural impact where children were deprived for their basic right to education due to lack of infrastructure, resources and supportive environment. The government of Turkey took measures to prevent the excessive damage along with providing support for learning through EBA and other digital media. However there was still a huge gap in the teaching learning process faced by students as well as teachers. The Turkish students who have been pursuing studies out the homeland had to face many consequences which involved stress, anxiety, lack of resources, confusion regarding their legal status, loss of opportunities and experiences etc.

Thus the study provides an in depth understating of the consequences of Covid-19 on the education system of Turkey and the students living within and outside Turkey by including qualitative as well as quantitative analysis to draw results for the study and will discuss the future prospect of research in the field. This will be a significant contribution to the literature and will be a great insight for readers to determine future course of action so that learning losses can be prevented.

Keywords: Post-Pandemic, Education, Economics, Turkey

Důsledky post-pandemie na vzdělávací systém Turecka (případová studie „turečtí studenti“)

Abstrakt

Cílem studie je zhodnotit důsledky post-pandemie covid-19 na vzdělávací systém Turecka a turecké studenty studující v Turecku i v zahraničí. Studie byla provedena s cílem analyzovat faktory, které ovlivnily strukturu učení a chování mezi studenty, a prvky, které způsobily negativní dopad na studenty v důsledku ekonomického zastavení a omezení pohybu jako opatření ke kontrole vypuknutí covid-19. a minimalizovat škody na lidském společenství. Vzdělávání je jedním z významných sektorů, které ovlivňují ekonomický, sociální a kulturní rozvoj národa. Stejně tak tyto faktory ovlivňují i rozvoj sektoru školství.

Ve studii byla provedena analýza důsledků, kterým čelí turečtí studenti uvnitř i vně země v důsledku pandemie covid-19, spolu s analýzou dopadu na turecký vzdělávací systém. Vládní opatření přijatá k omezení šíření covid-19 vedla k ekonomickým ztrátám. Studenti a děti patří ke skupině, která byla těžce zasažena vládními opatřeními, sociálními a kulturními dopady, kdy děti byly zbaveny základního práva na vzdělání kvůli nedostatku infrastruktury, zdrojů a podpůrného prostředí. Turecká vláda přijala opatření, aby zabránila nadměrným škodám, spolu s podporou vzdělávání prostřednictvím EBA a dalších digitálních médií. Stále však existovala obrovská mezera ve výukovém procesu, kterému čelili studenti i učitelé. Turečtí studenti, kteří studovali ve vlasti, museli čelit mnoha následkům, které zahrnovaly stres, úzkost, nedostatek zdrojů, zmatek ohledně jejich právního postavení, ztrátu příležitostí a zkušeností atd.

Studie tak poskytuje hluboké vysvětlení důsledků Covid-19 na vzdělávací systém Turecka a studenty žijící v Turecku i mimo něj tím, že zahrnuje kvalitativní i kvantitativní analýzu k vyvození výsledků pro studii a bude diskutovat o budoucích vyhlídkách výzkum v oboru. Bude to významný přínos pro literaturu a pro čtenáře to bude skvělý pohled na to, jak určit budoucí postup, aby bylo možné předejít ztrátám z učení.

Klíčová slova: Post-Pandemie, vzdělávání, ekonomika, Turecko

List of Abbreviations

OECD – Organization for economic development and cooperation

MNC – Multinational Company

WHO – World Health organization

IFAD – International Fund for agricultural development

ILO – Institutional learning outcomes

TUAC – Trade Union Advisory Committee

MoNE - Ministry of National Education

TRT - Turkish radio and Television Corporation

EBA- Education Information network

ICT – Information and communication technology

UNESCO - United Nations Educational, Scientific and Cultural Organization

GDP – Gross Domestic Product

ECEC – Early childhood education and care

IEFT - International Education Fair of Turkey

TALIS - Teaching and Learning International Survey

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1 Introduction

Education is one of the basic rights for the human and is a crucial pillar for nations' economy. It provides the structured learning to children so that they can be an asset for nation and society development. It is medium through which synthesis can be established between the culture and scientific principles and values necessary for the development of a nation by enhancing the capabilities, skills and knowledge of individuals.

However, due to onset of post-pandemic, an outburst of Covid-19, the daily life style of human population came to a sudden halt. Whole of the healthcare infrastructure was in a dismay and confusion in order to identify the manner to curb the increasing rate of infection in the human community and the rising death rate being reported on daily basis. The only solution that could be adopted for the time being was to stop all the human activities. The government took immediate steps to impose lockdown and economic activities shut down so that people can be restricted within a confined space of their homes in order to prevent contamination. These measures were necessary for the time being in order to prevent any irreversible loss, however such measure had other consequences up its sleeves which resulted sanitary crisis into economic crisis. The lack of economic activities caused a state of severe recession in the economy.

Every sector of the economy was affected whether manufacturing, hospitality, travel and tourism, construction, real estate etc. Education sector is also among the sectors which got highly affected due to lockdown. The major loss was the loss of learning which was caused due to sudden shift in the education system due to rising need of social distancing. As a measure to prevent spread, almost every government of nation took steps to close down schools, colleges, universities and other educational institution for an indefinite period. This brought a new change in the teaching and learning process of the education system were courses and learning were being conducted through online and digital medium. In order to continue remote learning medium such as televisions, radio channels, social media platforms and other digital application such as Skype, Zoom, Google meet etc. were used to ensure that learning process may continue. However, due to lack of resources, the integration of new system was less accommodating for teachers, students and parents. This created a huge learning gap between low middle income and high income families. Also, the consequences were not limited to economic factors but could be seen in social and cultural aspect as well

such as lack of support from family, fear anxiety and uncertainty, stress due to loss of family member, lack of resources to adopt the infrastructure to continue learning process etc. Also, the students pursuing their studies abroad faced various consequences which pushed them in a state of stress, fear, anxiety, lack of sleep, irregular eating etc. Further, change in the learning process was a poor substitute to their purpose of studying internationally which resulted into loss of opportunities for networking, learning different cultures, job opportunities, career growth etc. Hence, Covid-19 brought huge consequences on the education sector across the world. However, it is important to understand the depth of these consequences by analyzing the impact of covid-19 for individual nation.

Turkey is one of the fast developing nations which are affected by both European as well as Asian social economic and cultural environment due to its geographical location. During Covid-19, the government of Turkey took various steps to prevent the spread of infection. Also, government provided a huge support to education sector in order to continue learning process by establishing EBA and other digital application in order to continue teaching learning activities through remote locations. However, lack of preparedness and insufficient funds has resulted into widening gap in the learning process for the country.

Thus, in the below study the focus will be to determine the consequences of covid-19 post-pandemic on the education system. The study will discuss the views and outcome of previous researches that have evaluated the impact of covid-19 on the education sector and will explain the research gap that has been identified from the analysis of previous literature which will be the basis for the present study. In the study the discussion will be made on the impact of covid-19 on education sector, students of Turkey and Turkish students studying outside the country. Also, the evaluation will be made regarding the economic, social and cultural factors which have affected the education system during the covid-19 period.

Further, the research will be conducted on the research gap identified on basis of literature review where data will be collected from primary as well as secondary source. Wherein the primary data will be collected using questionnaire survey method in order to draw quantitative analysis and the secondary data will be collected on basis of few research articles in order to draw qualitative analysis. Hence the study is based on realistic research philosophy and mixed method and deductive approach in order to find solution for the identified research gap for the study, draw conclusions from the findings and provide perspective for future research dimensions in the area.

2 Objectives and Methodology

2.1 Objectives

The main goal of this thesis is to understand the extent of the negative consequences caused by the recent outbreak of the coronavirus. The author wants to assess the degree of recently caused economic, social, and cultural drawbacks, which directly affect a lot of Turkish students not only in Turkey but also those, who are actively studying abroad. The goal is to conclude how much the post-pandemic has deeply changed the lives not only of Turkish students and if the changes will be constant or if it is possible to predict a return to a situation before the post-pandemic.

2.2 Methodology

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In addition, the author also wants to gain insight into why students leave the country and whether it was done due to the virus outbreak.

To do so, the author wants to conduct a series of interpersonal interviews with Turkish students who have been studying abroad before and after the post-pandemic and look at what changes they felt in their studies and their lives before and after the outbreak of the post-pandemic.

Finally, the author also wants to perform an analysis that will reflect how the post-pandemic affected Turkey's national education framework.

The data from the post-COVID affords an utterly unique possibility to evaluate how worldwide crises reshape academic tendencies and pupil mobility students. Understanding the post-pandemic panorama will offer precious insights into the destiny trajectory of Turkish college students analysing study abroad and making their view of how should look like the new education system in Turkey in the future.

The interview data will be summarized, and the outputs will be processed in the SWOT form.

3 Literature review

Covid-19 was first detected in 2019 December. The study by Y. Chen, Liu, & Guo, in 2020 showed that the outbreak was possibly connected to one of the wholesale market for seafood in Wuhan china, where around 66% people working in the market as staff where reported to show symptoms. According to Li et al., in 2020, the unknown coronavirus showed mysterious pneumonia symptoms such as respiratory syndrome (Torales, et al., 2020). On December 31 in 2019, the local health authority made an announcement for shutting down of market declaring the outbreak as an epidemic starting from January 1, 2020. According to the documents of WHO in February 2020, the number of cases reached to 28,276 while the death toll was 565 across the globe (Wu, Chen, and Chan, 2020).According to the reports of WHO in April 2020, the virus of Covid-19 was spread out to more than 200 countries, The figures kept on changing with every new day at an increasingly alarming rate and become one of the primary issues for public health across the globe. Further, the rapid outbreak of Covid-19



posed various challenges to population across globe such as social, economic, environmental, public health etc. (Chakraborty, and Maity, 2020)

Figure 1: Measures to continue students' learning during institution closure (Source: Schleicher, 2020)

In almost every nation institution related to education, sports and commerce, spiritual were shut down to control the spread of coronavirus and brought difficulty to carry out teaching and learning activities for both teachers and students. According to the reports of UNESCO 87% of the students across the world were affected due to institution shut down. In the study of Haleem et al., in year 2020, developing countries faced first economic shock due to lock down which resulted into economic decline, closure of education and transportation system (Tadesse, and Muluye, 2020). UNESCO has specified recommendations for

conducting learning and teaching activities so as to ensure quality is maintained in the distance learning process to keep student motivated for the studies. Distance learning solutions, digital platform for learning management and other online platforms for imparting courses, learning, resources and other aids to support teachers, students and parents started emerging. Figure 1 presents the measures taken by OECD countries to continue students' learning during lockdown in Covid-19.

Although efforts have been laid down by the teachers and students in coping up with the circumstances post-pandemic has created but according to Bakker & Wagner, 2020; Erduran, 2020; Wang, Cheng et al., 2020 the reality of the situation is that the post- pandemic has led to the process to which many academics, students and parents are not familiar with. As per the study of Mustafa in 2020 the challenges, such as lack of internet, information technology, skills to operate digital technology, non-availability of devices and in ability to adopt learning through distance mode, resulted into making the teaching learning process highly difficult. Brooks et al., 2020; Wang, Cheng et al., 2020; Wang, Zhang et al., 2020 states that students have to face multiple issues such as unfavourable learning conditions, change in lifestyle and many more which threatens the mental, physical and psychological health of the students (Karademir, Yaman and Saatçioğlu, 2020).

The new era in education forced teachers and students to shift from traditional patters of teaching and learning to new age of technology in order to facilitate distance learning

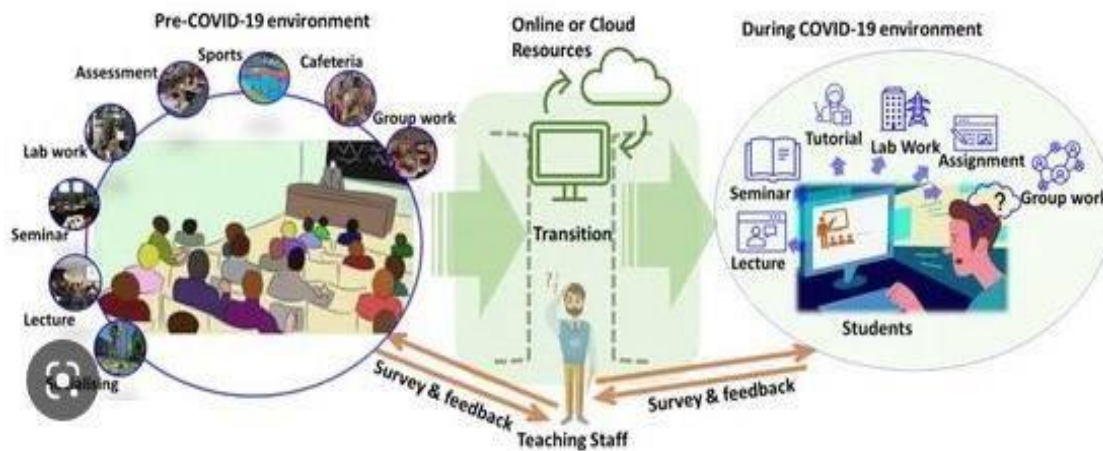


Figure 2: : The transition process from tradition pattern to new age of technology for teaching and learning (Sources: Arif, and Shafiullah, 2022)

education (Fig. 2). Zhang et al., 2020; Wang, Cheng et al., 2020 in their study have explained that students having the different socio- economic background may be the most affected students as they cannot afford PC, tablets and other technological devices for the distance

learning. The study of Yazgan in 2022 states that, the approach of the students in distance learning is more robust towards avoidance attitude rather than the approach attitude (Sorakin et al, 2022).

Thus, education system is another important sector which got hugely impacted by Covid-19 and its present and future consequence needs a detailed evaluation. Hence, in order understand the impacts of Covid-19 post-pandemic on the education system further literature from various authors were studied and the understanding of these literatures has been shown below. .

Empirical study on the impact of COVID 19 in the education system

As per TUAC Secretariat Briefing, 2020, in order to control the spread of corona virus in the world many countries have taken the initiative to temporarily close the child-cares, primary, nursery, secondary schools along with colleges and universities. As per the estimations of UNESCO, it has been reported that 1.5 billion students and above in 188 countries as at March 27, 2020 are unable to attend the schools and are out of schools due to such temporary closure of the schools in the world. As per Pujari, 2020, this post-pandemic of COVID-19 has resulted in a situation where entire education system throughout the world is affected, the manner of examinations and evaluations have been changed, extension of school or university year has been done and delays in starting the new semester has been observed. As per OECD, 2020, the efforts were made by the political and other concerned authorities in order to slow down the velocity of the infection arising from COVID-19. All such actions and circumstances have resulted in affecting the education which is one of the



Figure 3: Adopting Social media/digital technology for distance education due to Covid-19 (Source: Ibrahim, et al., 2020)

main daily activities of every student, teachers and parents. ETF, 2020; Reimers, 2020 states that though schools and universities were closed and there is no reasonable time when the same will get open, the distance education platforms have been adopted by many countries across the world. Initially the significant platforms to impart distance education were the social media platforms, through which teachers could connect with students and parents. However, gradually there was a significant increase in digital platforms (Fig 3).

Though distance learning and other online/digital solutions appeared as the best solution to cope up with such circumstances but at the same time it has created dilemma among the education authorities as such practices may bring risk of inequality in the manner of distribution of education as the students at all the levels and in all the countries may not be at the same level in context of digital competencies, affording computers and proper access of internet connections. Since the focus of our research is on the impact of post-pandemic on the education system of Turkey which have managed to narrow down the research from entire world to turkey and has presented some empirical study in the next section of this research where the previous researchers have elaborated their findings, opinions and ideas to the areas associated with post-pandemic and education system of Turkey.

Empirical study on the impact of COVID -19 post-pandemic on the education system of Turkey

Turkey has made the efforts to keep the threat of post-pandemic away from its borders until 11th March 2020 but after this period the cases in Turkey continue to increase. As per the database of COVID -19 recorded by Ministry of health, the number of cases reported after one month of the announcement of first official case of COVID-19, the known cases raised to 69,392, 1518 deaths were reported and 5674 patients were recovered in Turkey. The diagram

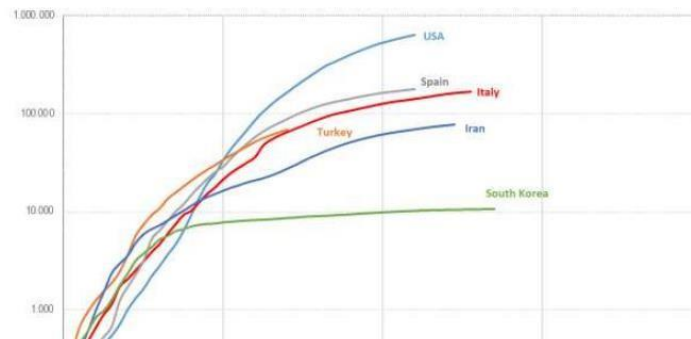


Figure 4: COVID-19 positive cases in Turkey and other countries such as Iran, Italy, Spain, South Korea and United States

(fig.4) has been presented below which will reflect the changes in the number of positive COVID-19 cases in Turkey in comparison to other countries of the world.

(Source: Journal article: Educational Policy Actions by the Ministry of National Education in the times of COVID-19, year 2020)

Since on the basis of the diagram it can be seen that COVID-19 cases in Turkey yet to reach at the peak level expected, the Ministry of Health and its scientific council by constantly evaluating the situation has adopted the stricter precautionary measures. Concerning on the rising cases and adopting stricter precautionary measures, Ministry of National Education (MoNE) was in constant communication with Ministry of Health and its scientific council and on the basis of considering the education system of Turkey with approximately 18 million students and 1 million teachers, MoNE has taken the initiatives where health and well-being of all such educational stakeholders was prioritized and for this purpose made the decision of schools and universities closure until end of April 2020 on the basis of necessary recommendations with Scientific council.

Since even after April 2020, the situations does not seems to get normalize it become crucial for continuing the education in Turkey via other alternative platforms. Manderson & Levine, 2020 states that like many other countries, Turkey has also transferred all types of activities of instruction to the digital medium for the purpose of continuing the educational services for all the educational stakeholders. By adopting this alternative of distance education, significant changes have been observed in interaction of the teachers with students, methods of realizing the lessons and processes of communication. Moreover, the post-pandemic in Turkey has resulted in the gradual transition to distance learning in case of universities as well. The statistics mentioned in the literature reflects that out of 189 universities, 121 (64%) universities have switched to the process of distance learning on March 23, 2020, 41(21.6%) universities transitioned into distance learning on March 30, 2020 and 25 (13.2%) universities on April 6, 2020 (Örgev and Kınalı, 2022).

Moreover, MoNE within the scope of distance education has decided to adopt its EBA ((Educational Informatics Network) and National television channel – TRT (Turkish radio and Television Corporation) to perform the courses using such online platform. EBA is basically the educational platform developed by MoNE of Turkey which is in existence since 2011-2012. EBA has been adopted because in this platform various learning materials including documents, curriculum based videos, tests, e-books and activities are provided to

stakeholders of education from pre to high school levels. EBA portal help teachers, students and parents in accessing thousands of books and documentaries. Using such EBA portal teachers are able to assign the assessment task to the students. Thus, by way of using such online platform EBA students are able to access the study materials as per their personal academic needs. EBA also support video recordings and thus video recordings can also be uploaded on the EBA portal. But EBA has been considered as one such online platform which is developed for the students studying in school and due to post-pandemic scenario various such other online platforms were developed for college, university students so that their education can be conducted in the similar manner. The schedule in the EBA portal for the classes of the students is developed in the structured manner, for example, all courses are made available to students between 09.00 and 14.00 and courses were replayed between 14.30 and 19.30 in the same order as the original classes. Thus, it reflects the manner how transformation of education system was done in Turkey using the online platform like EBA which is one such example and likewise other online platforms are adopted for providing education to the students in Turkey even in such critical scenarios of post-pandemic.

According to the study undertaken by Chen et al. in year 2020, stated that the strict measures to isolate human community and curb the risk of spreading of the virus had a negative influence on the mental health of students. Further study by Lee, in year 2020 observed that due to the closure of small businesses, loss of jobs and job opportunities created a mental pressure and worry in the minds of students about their future which made them vulnerable to issues such as stress, anxiety, depression etc. In the study of Lancker and Parolin, in year 2020, the situation of education institution closure resulted into widening the gap of learning between the students belonging to lower middle income families and students from families with high income who have resources to access digital learning environment (Bekci, 2021).

The conclusion drawn in the study of Argyriadis, et al., in year 2022, were the analysis of consequences of covid-19 on international students showed that the students showed symptoms of stress due to change in the functionality of their routine. The reports shows that the major consequences of lockdown was the depression, increase in appetite, weight gain due to stress eating, fatigue, anxiety, lack of energy and insomnia. The major conclusion drawn was that the social phenomenon played a deeper role in maintaining an effective mental health of students. The feeling of uncertainty, insecurity, shutting down of social life collectively

overwhelmed the students who were away from their homelands making them feel like prisoners and exclusion from social environment. It was seen that students studying abroad showed an immense understanding and respect towards government steps and measures and its necessity to safeguard the human population from further damage which was irreversible, however, the environment of insecurity and uncertainty around them regarding about every aspect of life cause them a serious mental breakdown (Argyriadis, et al., 2022). The support from society, foreign land government as well as homeland government was highly needed by them. The unavailability of resources, supplies and financial aid brought to them a huge pressure which was clubbed with the fear and trauma happening in the society. Another study focusing Danish and Turkish students analysed that students felt and experienced loneliness, disturbed sleep, boredom, anxiety, fear, and loss of family members, economic and financial pressure. Students felt highly discontent with the deliveries made through distant education medium and wanted to return back to face to face classes. The study showed decreased level in physical activity, irregular eating hence not only affecting mental and emotional state but also the daily activities of the students (Seyahi, et al., 2020).

The report presented in 2020 by center for disease control & prevention provided that during post-pandemic, students staying away from their homeland experienced a deep fear of losing their family members, fear of their health during the post-pandemic which affected their sleep and appetite. Also study by Galea et al., in 2020; Mamun & Griffiths in year 2020; Satici et al., in year 2020 indicated that people showed deep signs of psychological reactions such as frustration, fear, anger, helplessness, deep rooted uncertainty etc. This increased the threat of impaired logic in thinking making their moral judgments harsher and less accepting towards people from foreign lands. The study of Hardinges in year 2020; Mugambi in year 2020 showed that all these situations resulted into increase in the vulnerability of students studying in foreign lands and exposed then to the challenges of discrimination and stigma (Elemo, et al., 2022).

Further as per the study by Schleicher in year 2020 the crisis during covid-19 affected the students studying abroad (fig. 5) in following aspects:

Continuation of teaching leaning process and delivery of materials required to support course.

The legal status and safety of students away from their homeland.

Perception of students towards the value of study and degrees pursued from abroad.

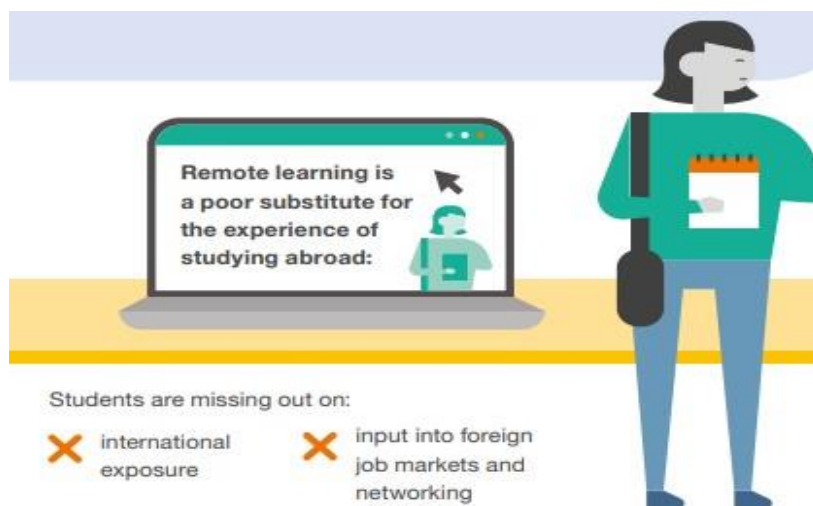


Figure 5: Impact of Covid-19 on Education of International Students (Source: Schleicher, 2020)

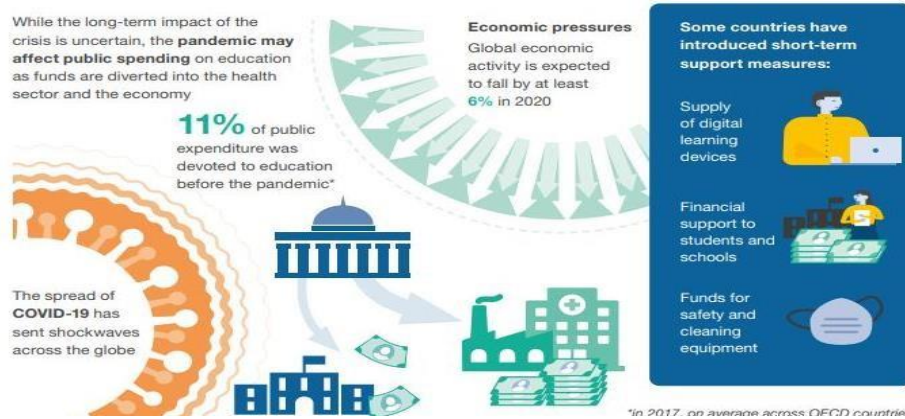
Prior to covid-19, there have been institutions which offered learning through online mode, however, it was not considered as sole alternative to the classes being conducted face to face in presence of an experienced teacher. Hence, the restrictions imposed during covid-19 affected students studying internationally and forced them to continue their learning through online sources only. Along with the loss of learning, students lost the opportunity received from their stay in a different culture and away from home country. The situation of Covid-19 deprived them with the opportunity of networking, job opportunities in foreign market, expanding their horizon of understanding different culture, meeting new people and learning new language that will enhance their overall skills and potentiality to perfume better in the economic development. The study showed that support from Turkish government to students studying abroad through collaboration with external agencies enabled them in coping with the harsh experiences. However, the shift of studies on to digital platforms affected their purpose of successfully achieving skills, knowledge and opportunities to flourish in their careers. Further, there were other drawbacks as well that affected the students in the post-pandemic situation in various aspects of their daily life activities.

Economic, social and cultural drawbacks affected the Turkish Students due to COVID-19 post-pandemic.

The measures undertaken by government authorities to prevent the increasing rate of spreading of Covid19, resulted into huge and severe loss to the economy and brought a

shockwave all around the world which lead to evolution of economic crisis from sanitary crisis. The study presented in the economic outlook of OECD, the experts who were being highly optimistic about the situation and other imposing effects also provides that the best to best scenario for the whole world in the upcoming years will be a period of brutal recession. These calculations were made only as the effect of first wave of the virus and the measures, the second wave and any other following waves of infection would result into worsening situation. This entire situation resulted into huge implication on the education sector. The sector is one of the basic infrastructure pillar of any economy which highly depend upon the tax money received by government and is also considered a key for generating tax money in future for the government by shaping students into an economic asset for nation. Every country including Turkey, on basis of their priorities, sets a definite budget amount for various activities such as education, healthcare, security, infrastructure etc. However, for every nation's education and healthcare are few of the significant sectors in which government injects funds either directly or indirectly so that these basic services are not out of the reach of any section in the society. However, any external shock may affect the amount of funding made by government as they need to change their priorities of the amount to be invested in different sectors. As per reports of OECD in year 2020, the governments of every nation such as USA, Australia, India, Turkey etc. were forced to divert their funds for investment in order to provide emergency support to the health care sector this resulted into cutting of the amount available for education sector. Also, shutting down of economy resulted into economic losses hence affected the total receipts of public funding in form of tax and donations and this cycle of diversion of funds towards rising healthcare and welfare sector and decreasing public funds kept on with the second and third wave of covid-19. The study of UNESCO in 2020 also presented that the current economic crisis due to sharp decline in government revenues and reprioritization of education budget by governments will affect the availability of funds for the education sector. Below is the presentation of economic impact of Covid-19 on the education sector (fig.6).

The change in the pattern of delivery of learning process required a huge level of preparedness to deal with the information and communication technologies through quality trainings and body of knowledge. As per the survey conducted by OECD in Turkey showed that 7% of the teachers reported a need for development of ICT skills in their profession, hence proving that shifting to digital platforms and remote learning would have been difficult and challenging for many teachers (OECD, 2020). In the report of TEDMEM 2021 Turkey's Compensation Education Roadmap, there was significant loss in the learning made by students during post-pandemic which also resulted into decline in their performance and



capacity to earn income in future.

Figure 6: Impact of Covid-19 on financing education sector in OECD Countries (Source: Schleicher, 2020)

Also, in the study conducted by Eđitim-Bir-Sen Center for Strategic Studies in year 2021, it was observed that the situation of post-pandemic caused a wider learning gap where only 5% to 7% of students could participate in the live classes through digital mode due to lack of resources. Teachers struggled to bridge this gap by sending resources to the door steps of the students who were not able to participate in live interactions (Karaaslan, 2021). The below figure 7 shows the economic losses faced by G20 nations.

The study by Kuhfeld et al., in 2020 reports that closure of schools does not only mean stagnation but also causes a sharp decline in the skills. Also the conclusion drawn in the end was that lack of schooling has caused a negative impact on the availability of opportunities for students in long-term, widening the gap in the development of skills and increase in the inequalities in the human community in coming future (Hanushek, and Woessmann, 2020).

The study conducted by TEDMEM in 2020a, showed that in Turkey, teachers especially from public schools faced the challenge of finding adequate support in the field of information

and technology which was required to carry out the process of e-learning for the students. During post-pandemic, the EBA TV and application for education implemented by MEB had multiple issues such as lack of rich content, technical errors, connectivity issues which affected the time duration for delivering learning to students and causing boredom and decrease in level of motivation for students to continue e-learning. Also the study shows that there was a huge negative psychological impact on the students during the post-pandemic phase and lack of psycho-social support to students worsened the impact.

	GDP 2019 (billions USD)	Impact of Lost Learning (billions USD)	
		-1/3 year learning	-2/3 year learning
Argentina	990	-683	-1 347
Australia	1 262	-871	-1 716
Brazil	3 092	-2 134	-4 205
Canada	1 843	-1 272	-2 507
China	22 527	-15 543	-30 636
France	3 097	-2 137	-4 212
Germany	4 474	-3 087	-6 084
India	9 229	-6 368	-12 552
Indonesia	3 197	-2 206	-4 347
Italy	2 557	-1 765	-3 478
Japan	5 231	-3 609	-7 114
Republic of Korea	2 206	-1 522	-3 000
Mexico	2 519	-1 738	-3 426
Russian Federation	3 968	-2 738	-5 397
Saudi Arabia	1 609	-1 110	-2 189
South Africa	731	-504	-994
Turkey	2 350	-1 621	-3 196
United Kingdom	3 121	-2 154	-4 245
United States	20 575	-14 197	-27 982

Table 1: Loss to GDP from learning loss during Covid-19 in the G20 Nations (Source: The Economic Impacts of Learning Losses by Hanushek, and Woessmann, 2020)

The study conducted by Cao et al. in 2020 presented that there was a significant increase in the anxiety level among students specially who are pursuing studies at universities. Further it was argued that due long term closure of education institutes and obligation to stay at home, lack of interaction and communication with teachers and friends, fear, uncertainty, insufficient information lack of personal space at home, loss of family member could result into permanent psychological impact on students and their learning capacity. Further, a sudden change in lifestyle, daily routine activities, social interaction, increased exposure to screen and restriction to the movement affected both physical and mental health of students of all age.

Also, teachers from turkey reported in one of the studies that lack of adequate infrastructure to support e-learning resulted into loss of students motivation to continue their learning, also many parents were not able to create a required learning environment at home to support their children and digital inequalities among families and students have been a major reason for lack of participation of students in synchronous education. Further other social and cultural consequences could be seen as the loss of learning for the special need students where providing programs such as customized education were not realized through the established platforms such as EBA TV and other portals for education (Aytaç, 2021).

4 Problem Statement

On the basis of the review of the literature of previous researches and journal articles, it has been observed that covid-19 post-pandemic has resulted into a huge economic and social disruption and causing an irreversible damage to human lives. The consequences of outbreak of covid-19 could be seen in every sector of human activity due to the measures taken by government to curb the spread of the infection and prevent human loss. Education is among one of the sectors which got affected widely across the globe resulting into severe consequences to the present and future economic and social aspects of society. The analyses of previous studies have showed that students, teacher and parents got widely affected due to lockdown measures, shift of traditional learning to e-learning. Though there have been immense supports from government as well as private sector to overcome the challenges, yet due to lack of preparedness to such situation caused multifold disadvantage causing learning and economic losses to students and nation in present and well as future times.

One of the major concerns due to lockdown was the learning loss which was an outcome of various factors that involved economic, social and cultural issues. Lack of knowledge and resources to support new elearning system by teachers, parents and students caused widening in the gap between students who were able to synchronize themselves with new normal and the students who were unable to adopt these methods. The studies conducted and a report presented by OECD, UNESCO and other international organizations observes that the spread of covid-19 has affected students in mental, physical and emotional aspects. The shutting down of economic activities affected low and middle income families which in turn affected the learning of students belonging to these families, also government had to reprioritize their budgets due to emergency needs of healthcare infrastructure which was another factors contributing to economic crisis in education sector.

E-learning was a forced alternative and a poor substitute for regular classroom learning. Students studying abroad also had to deal with these situations and bear negative impact of the post-pandemic situation. The literature has presented a vast picture for the consequence that happened due to covid-19 post-pandemic across the globe. However, it is important to study these impacts for different countries differently due to multiple factors such as economic background, government competency, social cultural issues, availability of infrastructure etc. that differs for each country.

In the literature, the discussions on the consequences of covid-19 post-pandemic on Turkish students have been discussed briefly. The study presents that like other countries, students of turkey and Turkish students studying abroad had to face various challenges which caused them learning loss, stress, anxiety, depression, loss of future growth opportunities etc. The government took measures to support the transition from traditional learning to technology based learning. However there were various other factors which caused learning a challenge for students, teacher and parents. The analysis of literature shows that major focus has been made on understanding consequences of covid-19 on students from developed nations. There are very limited studies which focus developing nations.

Hence, with an aim to make a significant contribution in the present literature, the research will be carried on the gap “Consequences of the post-pandemic on the education system of Turkey: A case analysis of Turkish students.” that has been identified from the analysis of literature and will be the focus of the further study.

5 Research Methodology

5.1 Basic Introduction

Research methodology plays a very crucial role for the purpose of conducting the research in the manner which is well structured and organized. The methodology defines the systematic and logical plan which has been adopted by researchers to resolve the problems associated with the research. Moreover, methodology shall be optimally chosen as the results of the research which must be valid and reliable and meet the objectives and aims of the researchers are based on such methodology. Further, the methodology also encompasses what data are collected by the researchers and also specifies the sources from where such data are collected along with explaining how such data collected is analyzed. Therefore, for the purpose of developing an in-depth knowledge and understanding on the consequences of the post-pandemic on the education system of Turkey, a detailed research has been conducted taking into consideration the case of different Turkish students studying in Turkey as well on those Turkish students studying outside Turkey also. Thus, on the basis of such topic of research the most appropriate methodology which has been adopted to find out the outcomes and impact of COVID-19 post-pandemic on the Turkish Students has been explained in the detailed manner in the further parts of the research.

In order to develop a research methodology it is necessary to identify the philosophy used for the purpose of carrying out the research, the approach adopted for such research and design of the research. By way of taking into consideration the philosophy, approach and design a detailed structure for the research can be well set out and data collection and analysis process can also be assured in a well-organized manner.

5.2 Research Philosophy

For the purpose of conducting the research which is based on the case study of the Turkish students, the research philosophy that has been used in the research is the pragmatism research philosophy. Since positivism and interpretivism research philosophies are mutually exclusive in nature, the “pragmatism research philosophy” has been considered as the different way of interpreting the results and investigating reality. Since under such philosophy a combination of the approaches which include both qualitative and quantitative approach has

been used it may help to develop a broader understanding of the phenomena under research which is required to be investigated. Further, pragmatism research philosophy has been designed in such a manner that it is capable enough in combining both positivism and interpretivism research philosophy within the scope of single research which will depend upon the nature of the research questions so developed. Thus, using such research philosophy provides some dynamic and innovative means of conducting the research which includes collection and analysis of data from both qualitative and quantitative sources.

5.3 Research Approach

Research approach plays a key role in developing the plans and procedures which have been adopted by the researcher through which broad assumptions are stepped down to detailed methods for the purpose of collection of data, analysis and further interpretations. In order to ensure an in-depth finding from our research, a mixed method research approach has been used. A “mixed method research approach” helps to combine the quantitative as well as qualitative data collection and analysis in one single research. Using such mixed method research approach would help to integrate the advantages of both the methods which further help to provide a complete picture rather a standalone qualitative or quantitative study. Since the research is required to be made on the case of Turkish students and consequences they have faced due to impact on the education system during post-pandemic a mixed method research approach is used which will help to find out the opinion and study of many researchers and experts and at the same time help to find out the opinion of the Turkish students on the basis of their response that has been obtained through survey questionnaire. Thus, to ensure a detailed understanding and knowledge based on the research of our topic, the mixed method approach find out to be the most appropriate and useful method that helps us to derive the outcomes which are meaningful, reliable, valid and complete.

5.4 Research Design

For the purpose of tackling the problems associated with the research there is a need to develop a strategy which is succinct and logical and this can be done by way of adopting a

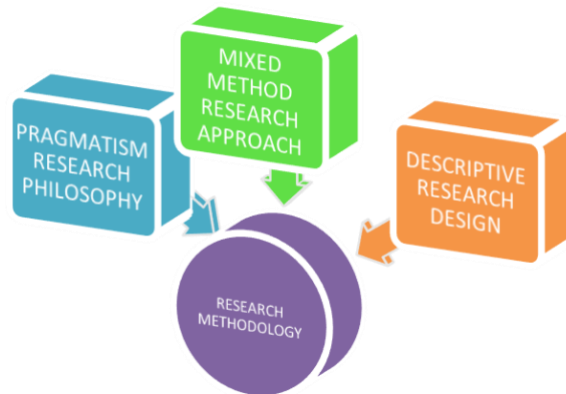


Figure 7:Diagram showing research methodology adopted (Source: Self-Created)

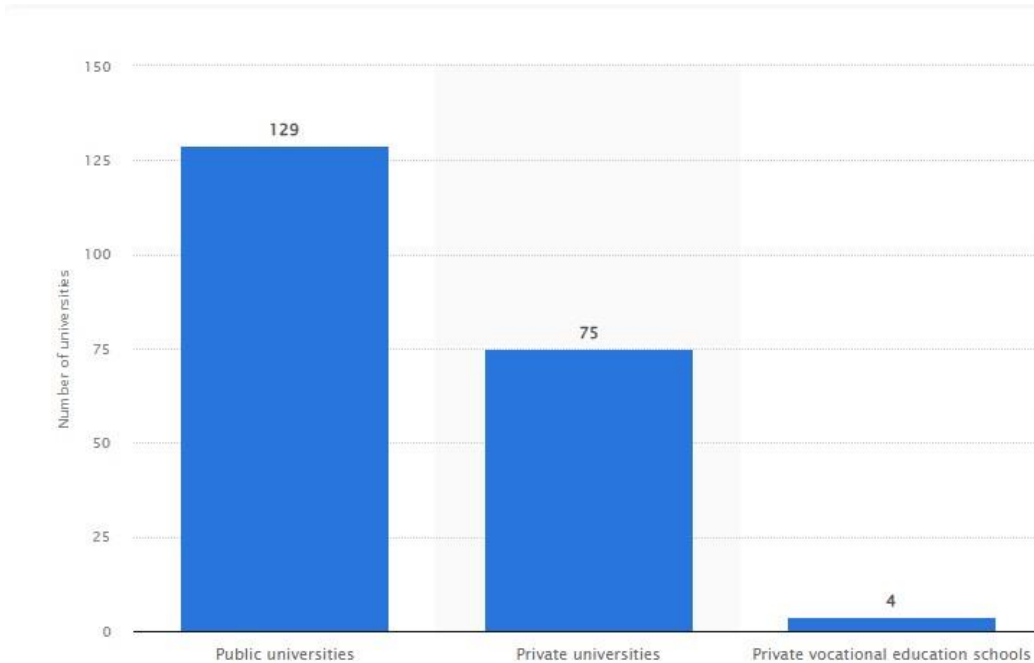
most suitable research design for conducting the study or research on the given topic. Here, since the approach used by us is mixed method research approach, the most appropriate design of research will be “descriptive research design”. Such research design is regarded as the most appropriate one because it spans both the methodologies of the research which is qualitative as well as quantitative. Since there is an ample of information on the consequences faced by the Turkish students during post-pandemic, descriptive research design is considered as the most apt and thus helps in identification, evaluation, analyses and interpretation of the most useful information that is related on such topic of research selected.

The diagram (figure 7) has been presented below with the aim of showing the methodology of research adopted.

6 Case Study Concerning Turkish Students

6.1 Overview on education structure of Turkey.

The education system of Turkey is controlled and managed by national system known as Ministry of National Education (MoNE). MoNE is considered responsible for the education of the Turkish students at the different levels i.e. pre-primary, upper secondary and adult education level. The education system of Turkey is considered as both large and highly centralized which covers over 1 million teachers and 18 million students as per the statistics of 2018-2019. As per the Turkish education system, the compulsory education lasts for 12 years. On an approximation, there are a total of 200 and plus universities as of year 2022. As per the records of statista 2023, the manner in which the total number of universities in Turkey



as of 2022 is divided has been presented below in the form of the graph (Statista, 2023) (Fig.8).

Figure 8: Total number of universities in Turkey as of 2022 (Source: Statista, 2023)

In order to meet the demand of the growing systems, there has been a substantial increase in the overall expenditure of the education of Turkey. In 2016, the expenditure of Turkey on primary to tertiary education in relation to GDP was 5.4% as compared to 5% on average across OECD. It has been reported that the education spending of Turkey as a national wealth has increased to 24% as compared to average decrease of 7%. As per the disaggregated

data, it has been suggested that the manner of spending on education system in Turkey is oriented more towards higher level of education whereas the share of

Turkish's education system consist of only 1.9% of GDP. Not only this, but a very less share has been oriented towards primary education of Turkey which is only 1%. Though the spending have been increased by Turkey on the education system from 2010 but when compared with the average of OECD, the per-student expenditure of Turkish students is less than half the average of OECD for education at primary and secondary level and 2/3rd at tertiary and ECEC levels. Moreover, it has been analyzed that among the countries of OECD, the maximum share of educational spending comes from private sources which also includes international sources (OECD, 2020). Across OECD countries, at tertiary level the private investment in education is evident but in Turkey, by private means is equally high for education at the primary, secondary and post-secondary non-tertiary but for tertiary it is below average. In case of schools in Turkey, households are regarded as the source from where majority of the private funding arrives and therefore, Turkey has actively promoted to increase the participation of such private schooling. Moreover, such act by Turkey for promoting private schooling will create a situation where challenges pertaining to equity arise and efforts shown to support disadvantaged students will weaken as limitations for disadvantaged students will occur in accessing the private schooling. On the other, hand, primary and secondary schools also receive funding prom public which is entirely from the central government in Turkey. Furthermore, in Turkey there are no charges or fees for students taking higher education from public institutions but charges are there for international students and those who fail to get graduated within the time prescribed for course. However, Turkish students studying from private institutions are required to pay fees as charged by such private institutions. But, adequate facilities of loans, grants and scholarships are provided in Turkey to support the fees required to be paid for higher education through private institutions. Thought it has been analyzed that advantaged Turkish students can still pay such fees of private institutions but disadvantaged students have to face challenges to access the tertiary education and did not have much avenues to acquire access of tertiary education as compared to advantaged students.

Though, in 2017 various efforts are made by MoNE for providing benefits to such disadvantaged Turkish students by way of extending Conditional Cash transfer for Education programme 2003 which was run by MoNE itself but such programmes are limited in providing

education to all disadvantaged Turkish students as approximately 500000 refugee students could able to attend the school by mid-2019 which when observed individually is a good number but as a whole need more such programmes and improvements in providing access of education to disadvantaged students. The diagram (fig. 9) has been shown below which shows the expenditure that has been incurred for per student at the different educational levels.

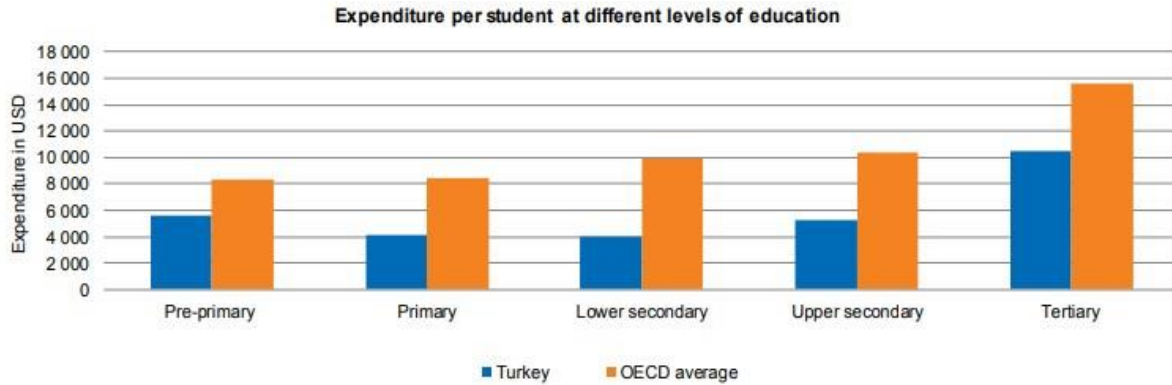


Figure 9: Diagram showing annual expenditure per student at different educational level

(Source: Education Policy Outlook: Turkey © OECD 2020)

6.2 Turkey Education system in the context of Employment opportunities

The education decisions play a significant role in developing people with skilled and labor market perspective. With the educational attainment, the rise in the formal prospects of employment has been seen in Turkey. As compared to 57% average, in 2017 the wage premium has increased to 64% for workers who educated from tertiary level as compared to those educated till upper secondary. However, inspite of such increase in percentage, in 2018, Turkey holds the OECD’s largest share where people of age group 25-64 years old are not educated beyond the primary school. Further, as per the Survey of Adult Skills (PIAAC) 2015, the literacy and numeracy scores are recorded as below average. Furthermore, in 2018, unemployment rates for age group between 25-64 years old were at 29% which is highest in OECD and very little has been done by higher education to limit the scope of unemployment. However, seeing such circumstances the prospects of young generation has improved as 26% of age group between 15-29 years were not employed and where in education or some sort of training. In order to improve the situations of employment in Turkey, vocational education and training has been initiated which to an extent will ease access of labor market but on the other hand, it has been analyzed that such vocational education and training programmes are not that sufficient that they can be used for workplace trainings and limiting unemployment.

As per the reports of national VET report, 2019, only 5% students attended VTCs in 2017/2018. In Turkey, VET programmes are required which are able to provide work based learning to the students. Therefore, keeping this in view Turkey made some reforms which were appreciated by OECD in 2019 but in order to mitigate inequalities there is a need to manage oversubscription to schools in Turkey which are able to maintain better quality as advantages students have better access of private tutoring, information and quality schools in their regions or areas. The diagram (fig.10) has been presented below showing 18-24 years old in education and not in education, by employment status of Turkey, 2018.

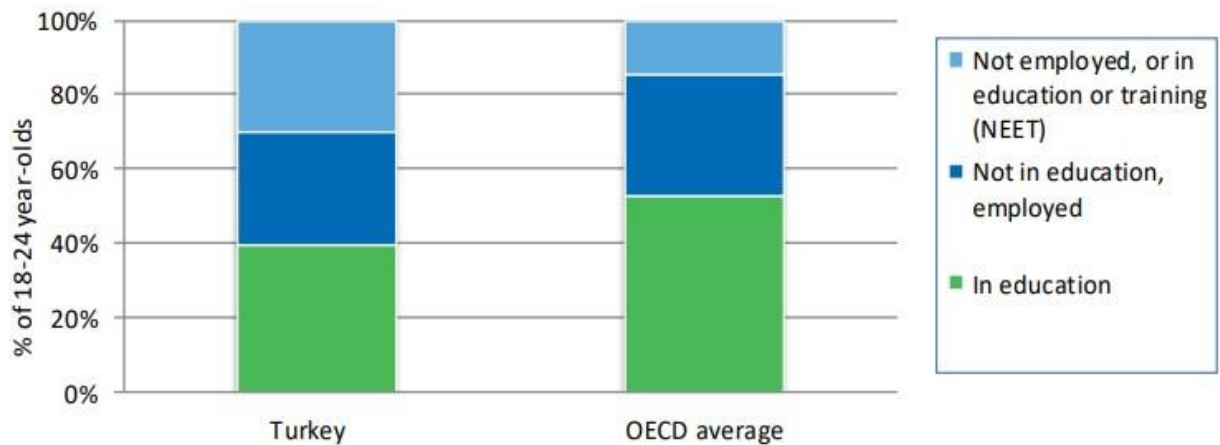


Figure 10: Diagram showing 18-24 years old in education and not in education, by status of employment, 2018

(Source: Education Policy Outlook: Turkey © OECD 2020)

6.3 Discussion on teaching conditions (pre-COVID 19 crisis analysis)

Turkey has comprehensive training programs for teachers and a formal induction period that help to support the novice teachers. Further, in Turkey, the salary of teachers from pre-primary to upper secondary level has same statutory salaries. Though the salaries of the Turkish teachers are below the average of OECD but the same is increasing to make sure that the teacher gain more experience. Therefore, in TALIS 2018, the Turkish teachers has shown their satisfaction with regard to the salaries and 74% when asked what they want to be again, they answered that they can happily be a teacher again in Turkey. Moreover, Turkey education system still face challenges with regard to ensuring positive learning environment for the purpose of enhancing the engagement of students and ensuring that teachers met the professional efficacies as needed for students overall development. The Turkish education

system has taken steps in such improvement in 2019 but as reported by OECD that it will take time and various other practices need to be established that have not been practiced earlier to ensure teachers met the professional levels in educating Turkish students. The diagram (fig. 11) shows the learning environment according to students, PISA 2018.

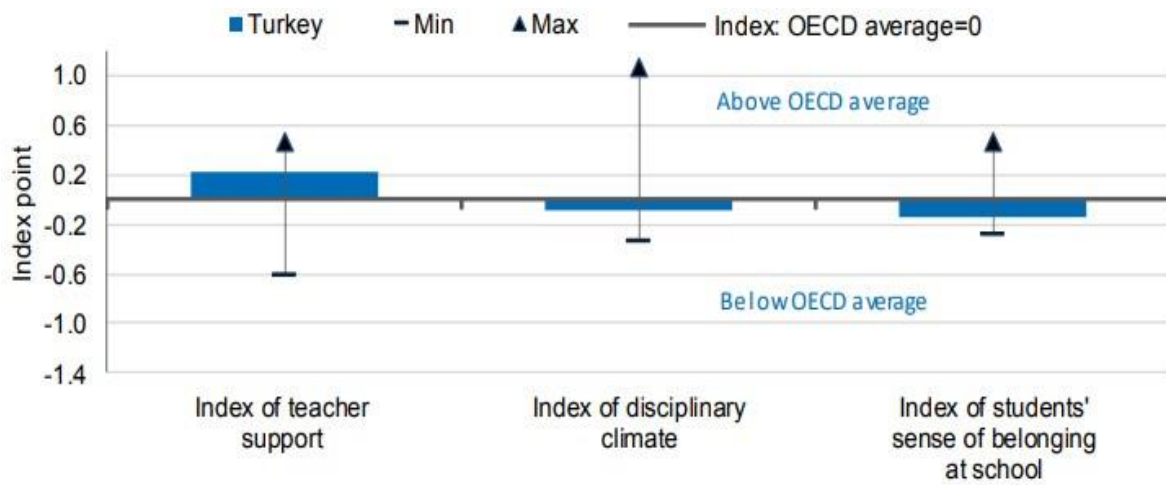


Figure 11: Learning environment as per students, PISA 2018 (Source: Education Policy Outlook: Turkey © OECD 2020)

6.4 Discussion on Turkish students studying abroad

In order to have access to better educational opportunities many students plan to study abroad.

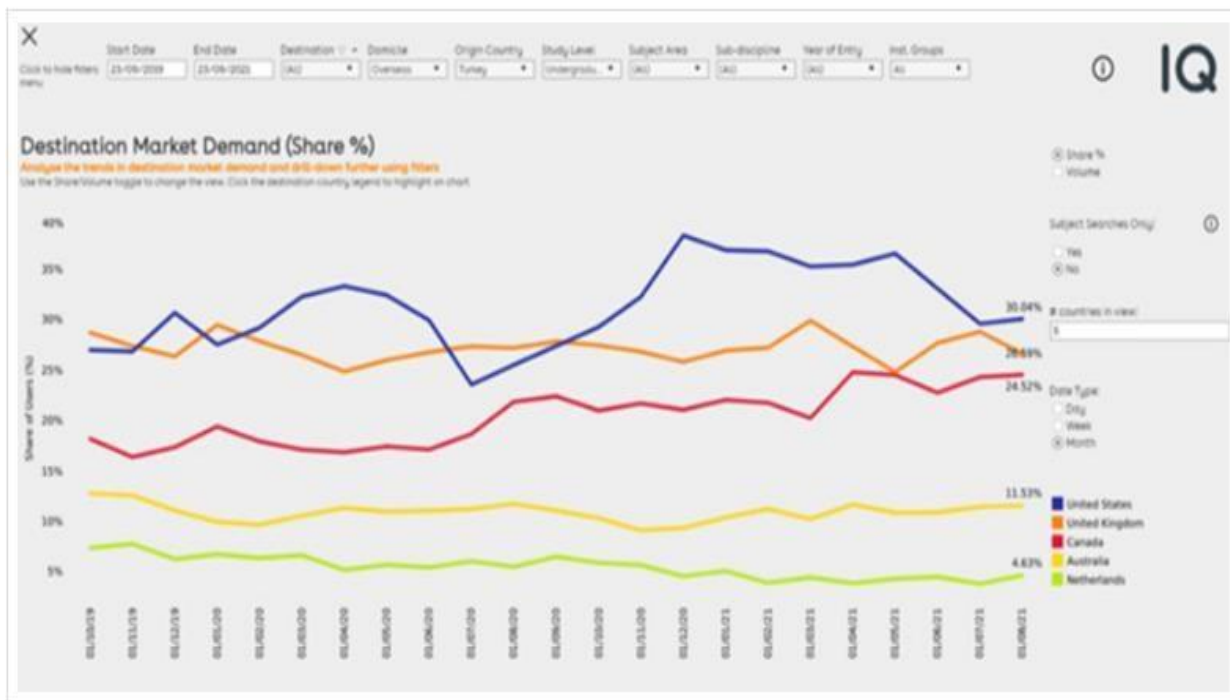


Figure 12: Destination market demand (%share) of undergraduate from Turkey

On an annual basis which counts for overall \$1.5 billion spent. Allocation of international education is also regarded as the country's current level of development. Also, changes among countries that are favored for education have also observed. Though, China, Russia, Japan and South Korea are considered as the most preferred countries, Turkey is ranked at number 15 among such countries who sends a considerable number of students abroad. General Manager of International Education Fair of Turkey (IEFT) says that people in Turkey have a major interest in choosing graduate programs in other countries (Study in China.com, 2023).

Further, as per the report of institute of International education, Turkey has been considered among the top 10 countries that send students to U.S. for education. Generally, \$10,000 is the approximate expenses that are incurred per students to get educated from other countries which may extent to \$20,000 annually. The demand for Turkish students to seek undergraduate programmes in US and UK is more as compared to other countries. The diagram (fig.12) have been shown below that reflects the undergraduate demand from

Turkey from September 2019 to September 2021 (Monitor.icef, 2022).

7 Data collection

In this research the approach that has been used for the purpose of conducting the research is the mixed method research approach and using such approach requires to perform the analysis on the both measures which are qualitative and quantitative data analysis. Therefore, data collection technique used here is from both primary sources of information and secondary sources of information. Secondary sources of information are those which have been derived from the work of the other researchers or authors who have used some primary data sources to make analysis and derive the outcomes of their study or they have used some other authors' empirical studies on which their outcomes are based. Also, while using such secondary sources of information it is believed that the information so gather are reliable and trustworthy on which further analysis can be made by the future researchers. Under secondary sources of collecting data, the different sources which are used are peer reviewed journal articles, websites, newspaper articles, online news, magazines and similar type of sources. On the other hand, primary sources of data are those which are first hand data collected by the researchers. Such firsthand data here means the information has been gathered by the researcher from the means from where they have been originated. In order to collect the primary sources of information the researcher uses various methods such as observation, experiments, surveys, questionnaires, interviews and such other similar means.

Here, in this research since qualitative and quantitative data both are required to be collected as mixed method research approach is applied, therefore, the sources of information i.e., primary as well as secondary has been elaborated in the below paragraph.

Since the case analysis of Turkish students has been taken to conduct the qualitative and quantitative analysis, therefore, for qualitative analysis the secondary sources of information chosen are the peer reviewed journal articles and some genuine websites for additional information. Such journal articles are considered as the most relevant sources as they consists of the information related to the topic of our research whose outcomes are already tested and verified and helps to provide future research directions.

Thus, to derive the outcomes so desired from the study of our research topic "Consequences of post-pandemic on the education system of Turkey" we have collected 6 most suitable and relevant journal articles which will help to draw analysis and arrive at the final outcomes. These journal articles are the studies made during the COVID-19 on the

impact post-pandemic has created on the education system of different countries and even on

Citation	Country	Method of data collection	Test used for deriving outcomes
Churi et al. 2021	India, Turkey	Online Questionnaire	Qualitative and quantitative analysis
Tarkar, 2020	India	NA	Editorial article
Dorn et al, 2020	United States	NA	Editorial article
Tunaboylu and Inal, 2021	Turkey	Open ended survey questionnaire	Content analysis
Sorakin et al, 2022	Northern Cyprus, Russian federation and Republic of Turkey	Research articles	Qualitative analysis
Uddin and Uddin, 2021	Bangladesh	Questionnaire	Quantitative analysis

Turkey and Turkish students. The list of such journal has been presented in the table below

(Table 1) and inferences of such articles have been shown in Table 2:

countries

Table 2: Existing empirical studies on impact of COVID-19 on education system of different countries and on students of such

Note: All such citations references are present in reference list at the end

Citation	Inferences
Churi et al. 2021	More detail can be analyzed on the impact of international students in the India and Turkey respectively.
Tarkar, 2020	The discussion has been made on impact of COVID-19 in education system and on parents. More discussion can be made on impact of COVID-19 on the behavior and mental level of students living with parents.
Dorn et al, 2020	The discussion on learning loss in future employments can also form part of this article. Learning loss and opportunity gaps has been identified but how and to what extent it will impact on future employment can be discussed.
Tunaboylu and Inal 2021	The study is elaborative in the context of teachers and their skill upliftment, but more can be explained on method or areas where teacher can secure their career in future and remain competitive with the introduction of digital means in the education system and to cope with unexpected contingencies.
Uddinand Uddin, 2021	The study discusses about the mental health of students during COVID19 post-pandemic and has used quantitative method for analysis whereas qualitative analysis can also be used to develop in-depth theoretical understanding on such topic.

Thus, the tables above indicates the list of articles which have been taken for the data collection basis and out of such articles few articles will be taken as sample to draw the research findings and results using qualitative analysis.

Further, for the purpose of conducting the quantitative analysis, the survey questionnaire method has been used for the collection of the information from the primary sources. By using such method, the data will be collected by circulating the questionnaire by way of Google forms and response from the respondents will be collected. On the basis of the responses so collected from the respondents which is Turkish students studying within and outside Turkey, the further analysis will be made by selecting the samples from such vast data collected. Further, the questionnaire so developed is divided in the four parts which covers majority of the aspects that can help us to draw analysis on the consequences faced by the Turkish students

during COVID-19 post-pandemic. The four parts in which questionnaire are divided are as follows:

PART 1 – Consists of Demographic information

PART 2- Consists of information regarding effect on the study of the student's due to COVID -19 post-pandemic

PART 3 – Consists of information regarding perception of the students on online education system adopted during the period of COVID -19 post-pandemic

PART 4 – Consists of general information

Moreover, the questions of the questionnaire on the basis of quantitative analysis have been drawn is attached in “Appendix 1” at the end of this research paper. There a total of 15 questions on the basis of which outcomes are derived.

8 Sample collection

Since for the purpose of deriving our research results and findings, we have used both qualitative and quantitative analysis methods for data collection, therefore, samples for both the method's sources of information will be collected on the basis of which our final research outcomes will be based. In case of qualitative analysis, since data collection is done from 6 different journal articles, a non-random sampling method will be used where 3 articles out of 6 different journal articles has been selected which shall be taken to achieve the desired outcomes or results from qualitative analysis along with some additional sources of information from websites and other articles as well. On the basis of non-random sampling method, the selection criteria is based on convenience where data collection process is made easy and relevant articles for the research can be selected. Further, for the purpose of quantitative analysis, a random sampling method will be used. This is because the questionnaire has been circulated to approximately 1090 Turkish students studying in schools, universities and institutions in Turkey and outside Turkey and analysing the response of such large number of students may become a complex and hectic process with errors in deriving the final outcomes. Therefore, a random sampling method has been used where a total of 350 respondents out of 1090 respondents' response have been considered as a sample which helps to determine the characteristics of the entire population which is 1090 respondents (Turkish students) in our case. Thus, by way of such sample collection technique an appropriate and close approximations about the research findings can be achieved which further helps to draw analysis and acts as a basis for future researches.

9 Results and Analysis

9.1 Qualitative analysis

The qualitative analysis is conducted on the basis of the work of the previous researchers which has been chosen from the data collected via non-random sampling basis and also from additional sources of information which further helps in determining the consequences of post-pandemic on the education system as well as on the Turkish students studying in Turkey and outside Turkey.

9.1.1 Impact on education system of Turkey

The analysis begins by way of ascertaining the impact COVID-19 post-pandemic has caused on the education system of Turkey. On the basis of the analysis made on the reports of OECD and past researchers study it can be stated that the post-pandemic has resulted in an emergency which has led to the change in the entire education system. There has been a sudden shift of education process from offline mode to online learning platform. Though distance learning exists before COVID-19 also where students are allowed to pursue their degree via mode of distance learning but remote online learning was something different from regular distance learning. On the other hand the sudden occurrence of post-pandemic has placed teacher, students and parents also in a situation where they are not prepared at all to accept such sudden change. It has created a negative impact on the finances and emotions of various people across the different countries. In Turkey, though government has initiated

Table 3: Empirical studies listed above inferences

Selected indicators of system readiness (OECD)		Turkey	Average	Min	Max
<i>Students' readiness (according to students' self-reports in PISA 2018)</i>					
1	Index of self-efficacy	0.36	0.01	-0.61	0.36
2	Percentage of students in disadvantaged schools with access to a computer at home that they can use for school work	40.0%	81.5%	23.5%	96.5%
<i>Teachers' readiness (according to lower secondary teachers' self-reports in TALIS 2018)</i>					
3	Percentage of teachers with a high level of need for professional development related to ICT skills for teaching	7.5%	17.7%	5.3%	39.0%
4	Percentage of teachers agreeing that most teachers in the school provide practical support to each other when applying new ideas	79.4%	77.9%	64.7%	86.5%

measures to implement the online learning platform to ensure continuous education to students but adoption of such new system readiness was low among the teachers and students both.

The diagram (fig. 13) below states the indicators of students' readiness and teachers readiness as per the report of OECD, 2020

Figure 13: Selected indicators of system readiness (teachers and students)

(Source: Education Policy Outlook: Turkey © OECD 2020)

Further, establishing such online learning education platform to ensure education to all students has also resulted in inequality among advantaged and disadvantaged students in the society. This is because for online learning adequate resources are required such as internet connectivity, computer and even paying fees was difficult for disadvantaged students' parents. Thus, post-pandemic creates negative impact on the education of the disadvantaged students which in turn will impact their career as well as future opportunities for employment. Furthermore, problems related to technological infrastructure and lack of teacher training has also created problems to effectively run the education system during the period of post-pandemic. Thus, education system in Turkey has been changed to a vast extent which needs more financial and emotional support to ensure the process of education remains smooth and easy for all otherwise economic imbalances in the society will get visible clearly in the next few years.

9.1.2 Impact on Turkish students studying in Turkey and outside Turkey

On the basis of the study of the case of Turkish students the analysis has been drawn on the impact of COVID-19 post-pandemic on the Turkish students studying in and outside Turkey. It has been analyzed that post-pandemic has negatively impacted the students. Like any other country, Turkish students also are under fear of getting infected if they communicate with any of their friends and teachers which has resulted in no face to face interaction except with the family members. The online learning platform initially keeps the students motivated but gradually they lose interest and they adopted an avoidance attitude towards their studies. The students find it difficult to ask and resolve queries online. Not only this post-pandemic has resulted in a situation where access to education become difficult for disadvantaged students of the society who cannot afford to cope with technological changes and also does not have resources to ensure education through online platform. Further, closure of the schools and universities has resulted in increased number of dropouts as they cannot switch to online platform on an immediate basis resulting in loss of learning. Further, students have to undergo mental pressure as they find it difficult to learn from online means and fear of failing increased

among the students. Also, those students who are not able to attend the class face anxiety and stress issues. Moreover, students which used to live in hostels have to stay at their homes which have increased their frustration level and stress when they came to know about the financial difficulties of the family, risk to health and job loss of the earning members of the family.

On the other hand, Turkish students living abroad for higher studies such as in countries like USA and UK has to face difficulties on daily basis for their survival. Due to complete closure they lost their jobs which has resulted in difficulty in paying their education fees and even faced hunger due to lack of money. Also they have to leave their dormitories overnight due to continuous spread of virus which made them homeless and since transportation is prohibited to use they cannot return to their home country. Turkish students have to face immense pressure, mental illness and health issues during the period of post-pandemic which has impacted their studies, and some have to stop studying which has positioned them in situation where they were heavily under debt. Thus, overall post-pandemic has raised concerns among the Turkish students about their well-being, loved ones health, academic performance and even future employment opportunities. They were also concerned with their mental health as many cases of depression were observed among the students during this period of post-pandemic.

Thus, post-pandemic has resulted in a negative impact both in socio-economic and cultural sense on the Turkish students as in many cases their relations with parents get worse, financial losses are on peak, no emotional support and no interaction with society. Therefore, results related to depression cases and suffering from mental health are more among students during such post-pandemic period.

9.2 Quantitative analysis

The information has been collected from the respondents by way of circulating the questionnaire which helps to examine the perception of the Turkish students in Turkey and outside Turkey about the consequences that have been faced due to the COVID-19 post-pandemic and what impact on the education system has been observed by them. The survey questionnaire is developed in such a manner which is divided into four parts part 1 – Consists of Demographic information, part 2- Consists of information regarding effect on the study of the student's due to COVID -19 post-pandemic, part 3 – Consists of information regarding

perception of the students' on online education system adopted during the period of COVID -19 post-pandemic and part 4 – Consists of general information. Thus, questionnaire (attached in Appendix 1) includes the most relevant questions which revolve around the topic of our research and helps to provide the desired outcomes from such research.

9.3 Demographic analysis

A total of 1090 students across Turkey and in other countries majorly United States have been participated in this survey. The survey has been circulated at all the levels such as school, colleges and universities to record the perception of the students at different levels. In Turkey, the response from students has been collected from 2 schools and 3 universities whereas from United States the response have been collected from 1 university and 1 school.

Further, the demographic analysis reflects that out of 1090 respondents, 689 respondents are male which contribute 63% of the total respondents, 359 respondents are females which contribute 33% of the total respondents and 42 respondents which contribute 4% of the total respondents prefer not to disclose their gender. Moreover, no case of transgender recorded separately and there may be possibility transgender, if any, may fall in the category of 4% who prefer not to disclose.

Further analysis reveals that out of 689 male respondents, 322 male respondents fall between the age group of 22-25 years which contributes 46.7% of total male respondents, 178 male respondents fall between the age group of 25 years and above which is 25.8% of total male respondents, 59 male respondents fall between the age group of 15-19 years which is 8.6% of total male respondents and remaining 130 male respondents fall between 19-22 years which is 18.86% of the total male respondents. Thus, it can be seen that the number of male respondents whose age is 19 years and more are the maximum participant of the survey questionnaire and the reason for the same which has been analyzed is that questionnaire has been circulated through online mode i.e. email and students above a certain age group which is 19 and above in our case access emails on daily basis to keep themselves updated from lecturer announcements, asking queries, making personal requests to the college and university etc. whereas school going students are the ones which fall under the category of 15-19 years of age and are newly admitted have limited access to emails and even does not uses the email on regular basis, therefore, percentage of respondents between 15-19 years of age group are less.

Moreover, out of 359 female respondents, 151 female respondents fall in the category of 25 years and above which is 42% of the total female respondents, 108 female respondents fall in the category of 22-25 years age group which is 30.2% of the total female respondents, 79 falls under the category of 19-22 years age group which is 22% of the total female respondents and 21 falls in the category of 15-19 years of age group which is 5.8% of the total female respondents. It has been analyzed that majority of the female respondents fall between the category of 19 and above years of age and very less between 15-19 years age group, this is because school going females does not have much access to the emails and they very often open mails unless some information is specifically mentioned to observe or any message through emails is required to be done. But the females above age group 19 years are active users and have access of emails on frequent basis, therefore, female respondents contribute major percentage from 19 years and above age group.

Furthermore, a detailed analysis have been made to ascertain the current status of education of the respondents which will help to evaluate that what percentage of respondents

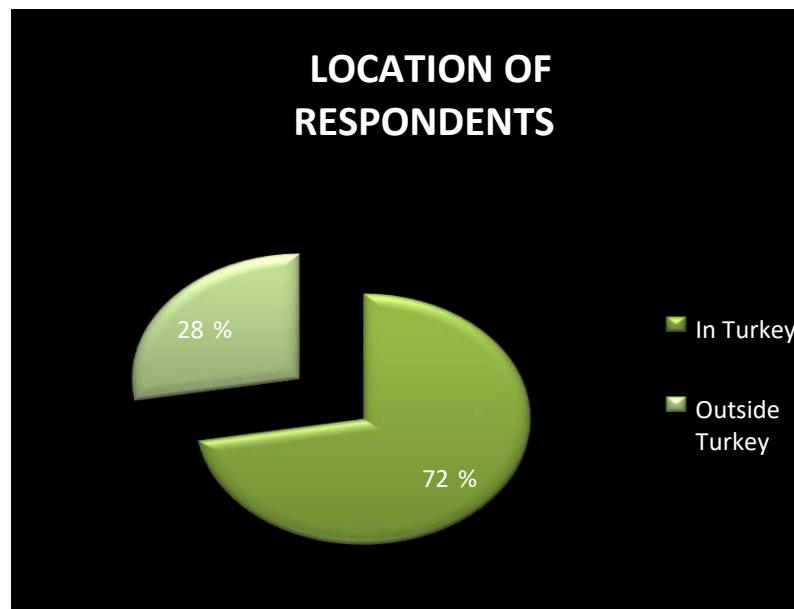


Figure 14: Diagram showing location of respondents

have provided response which are highly educated and can deliver some authentic and reliable responses that will make the outcomes of the study more reliable. It has been analyzed that out of total 1090 respondents, 89 respondents are from secondary and higher secondary which is 8.2% of total respondents, 493 respondents are from undergraduate programme which is 45.2% of the total respondents, 329 respondents are from post graduate programme which is

30.2% of the total respondents and remaining 170 are from doctoral or other higher programmes which is which is 15.6% of the total respondents.

Last but not the least the total number of respondents from Turkey are 788 out of 1090 respondents which is 72.23% of total respondents and remaining 302 respondents are from Outside Turkey i.e. United States which is 27.77% out of total respondents. Since the study is about education structure of Turkey and Turkish students, the response has been obtained more from students studying in Turkey and to analysis the state of Turkish students studying abroad a reasonable response from students studying in United States has been obtained.

**PERCEPTION OF STUDENTS ON TRANSFORMATION
IN STUDDY PATTERN AND ASSESSMENT**

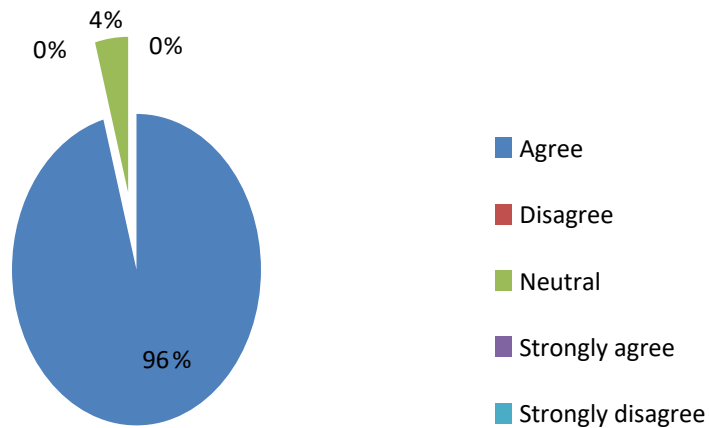


Figure 15 : Diagram showing perception of students on transformation in study pattern and assessment

Thus, the above demographic analysis will further help to conduct the quantitative analysis and establish reasons why such percentages of respondents have occurred on particular given scenario. The graphs have been presented below reflecting the demographic analysis of the respondents.

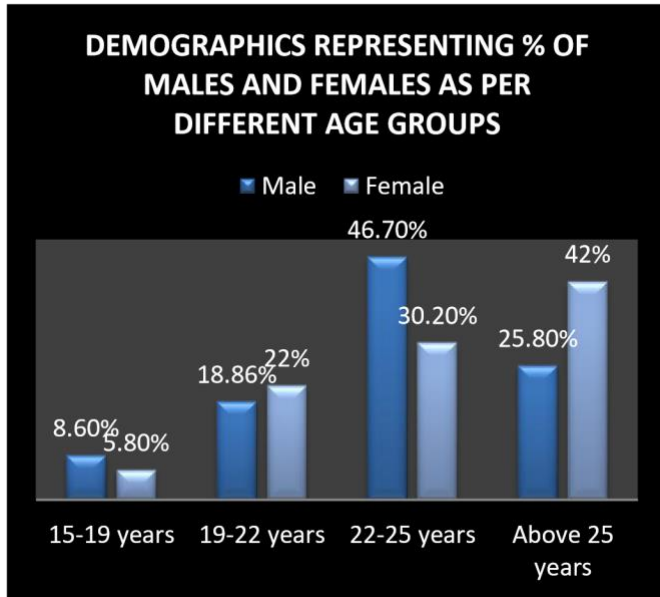


Figure 17: Percentage of genders as per age

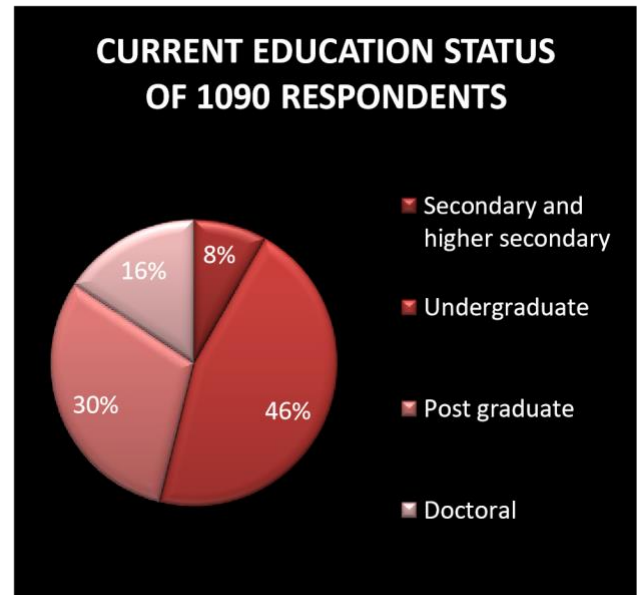


Figure 16: Current Education status of 1090 respondents

For the purpose of conducting the further analysis, out of 1090 a total of 350 respondents responses have been analyzed which will form the basis to study the entire population of 1090 respondents.

Therefore, $n = 350$ for the purpose of conducting the research

9.4 Analysis on the information regarding effect on the study of the student's due to COVID -19 post-pandemic

Q1. There is a transformation in the study pattern and activities such as submission of assignments, classroom activities and more during COVID-19 post-pandemic?

Response indicators	Perception of students	%
Agree	335	95.71
Disagree	0	0.00
Neutral	15	4.29
Strongly agree	0	0.00
Strongly disagree	0	0.00

Table 4: Table below reflects the number of respondents' perception on different impacts on the education system and their learning experience through online mode

On the basis of the above practical analysis, it can be said that maximum number of respondents are of the opinion that online education system has resulted in the transformation of the pattern of study and assessments and other activities conducted during the class. It has been analyzed through this survey that 95.71% of the respondents agree that transformation has been done whereas 4.29% remains neutral and no disagreements can be seen to this fact among Turkish students. The reason behind such analysis report is that post-pandemic has led to an emergency where with no prior intimation the schools are closed and entire system of education was made online. No one not even teachers are prepared for drastic changes and such change is not like routine distance learning but something more than that. Therefore, everyone is of opinion that transformation has occurred in entire education system which they find hard to cope up with on an immediate basis.

Q2. Does post-pandemic has an effect on the study load of student's?

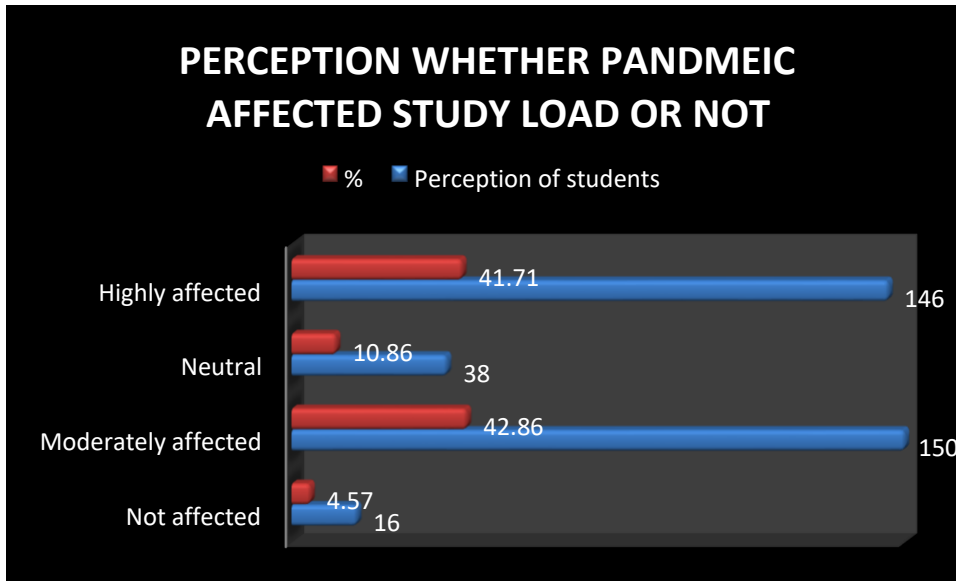


Figure 18: Diagram showing effect of post-pandemic on the study load of students

Response indicators	Perception of students	%
Not affected	16	4.57
Moderately affected	150	42.86
Neutral	38	10.86
Highly affected	146	41.71

Table 5: Table below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

Here, on the basis of the response received it can be said that the mixed perception has been obtained from students but still high percentage of students believe that the study load has been moderately affected. It has been analyzed that 4.57% agrees to the perception that nothing has been affected whereas 42.86% believes that there is a moderate effect and 10.86% does not presented their perception and remains neutral. On the other hand, 41.71% students have perception that they are highly affected. The reason behind such perception of students is that due to online education system the system of assessments have changed and now students is required to complete 3-4 assessments along with the daily tasks given by the teachers. Therefore, students have framed this opinion that study load has highly affected.

9.5 Analysis of the information regarding perception of the student's on online education system adopted during the period of COVID -19 post-pandemic

Q3. Whether online learning has resulted as a viable option for learning as compared to physical or face to face classes' environment?

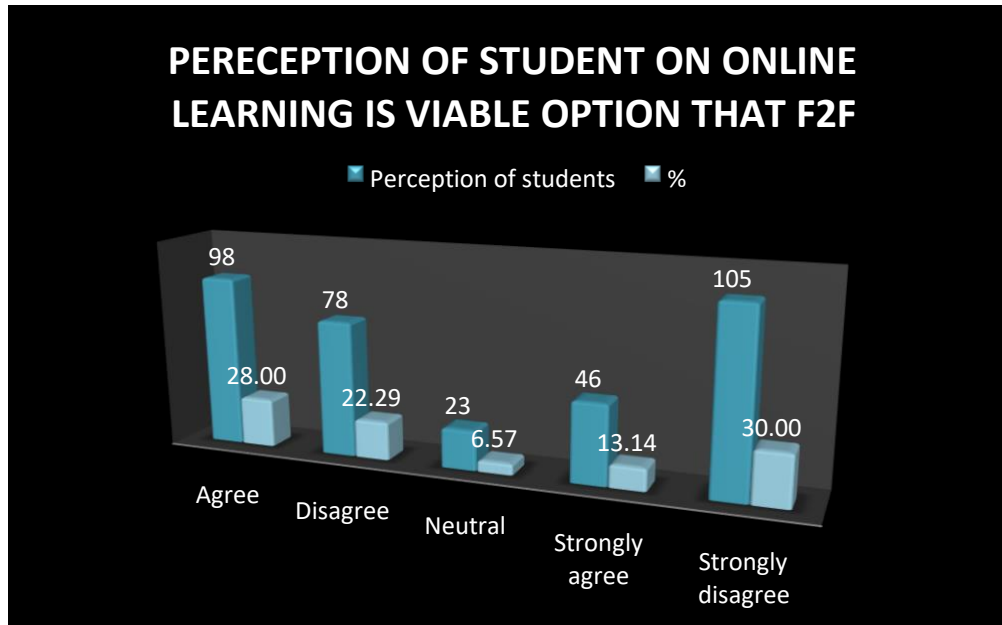


Figure 19: Diagram showing whether online learning is a viable option or not (Source - self)

Response indicators	Perception of students	%
Agree	98	28.00
Disagree	78	22.29
Neutral	23	6.57
Strongly agree	46	13.14
Strongly disagree	105	30.00

Table 6: Table below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

It has been analyzed that 28% of the students have agreed to the fact that online learning is a viable option, whereas 22.29% disagrees on the same and 6.57% remains neutral and gave no response. Further, 13.14% has shown string agreement to this that it is a viable option and 30% has shown strong disagreement that online education is not viable option. Thus, analysis can be drawn that the perception of students is mixed as some believe it a good option and some does share the same opinion. But majority students disagree to the fact that it is a viable option

over face to face learning. The reason behind such perception of agreement is that a student does not have to travel across the city to reach to school and can save time and utilize such time to study further or in some other household activities. Whereas those under disagreement has framed this perception because they believe that online learning is making them lethargic and they are finding hard to understand what has been taught through online classes. Also, they have the option to avoid the classes at their desire which is not a good attitude towards study. Thus, face to face is preferred by students in majority in this case.

Q4. Whether students learn less through online classes?

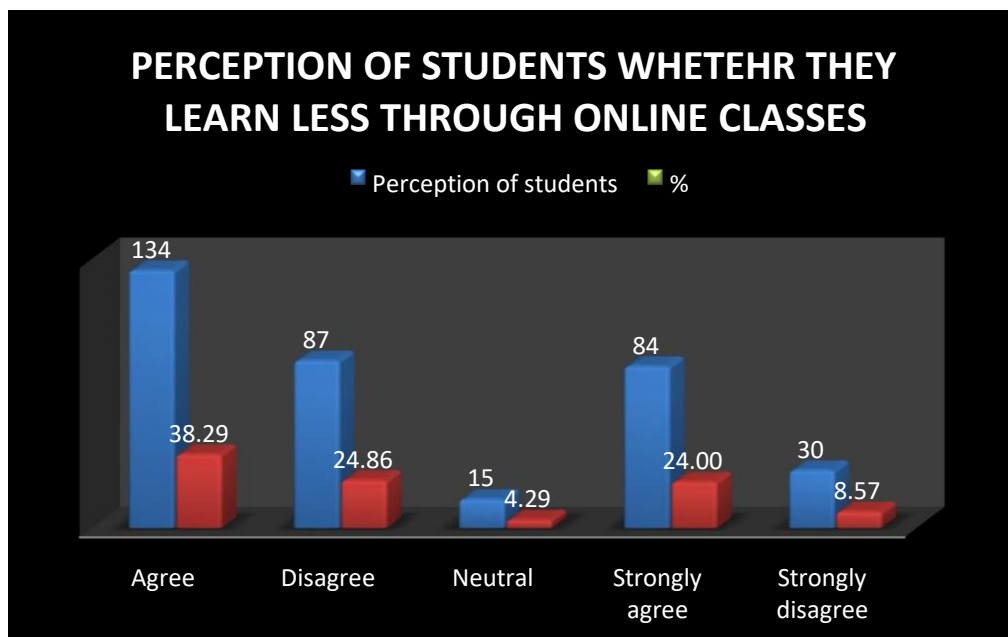


Figure 20: Diagram showing perception of students on whether they learn less through online classes

Response indicators	Perception of students	%
Agree	134	38.29
Disagree	87	24.86
Neutral	15	4.29
Strongly agree	84	24.00
Strongly disagree	30	8.57

Table 7: Table below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

It has been analyzed that 38.29% of the students are of opinion that they learn less whereas 24.86% have perception that this is not the case. While 4.29% remain neutral to this, 24% shows strong agreement in comparison to those which shows strong disagreement by 8.57%. As per such response of students it can be said that most of the Turkish students whether in or outside Turkey are of opinion that they learn less through online learning reason behind such perception may be they are not serious with such approach of learning, they are unable to ask queries and solve doubts, also interaction with teacher has minimized and students are not able to consult with their friends to better develop the understanding on the topic taught.

Q5. Whether interaction with the teachers seems impersonal and lacks the feeling as compared to physical classes?

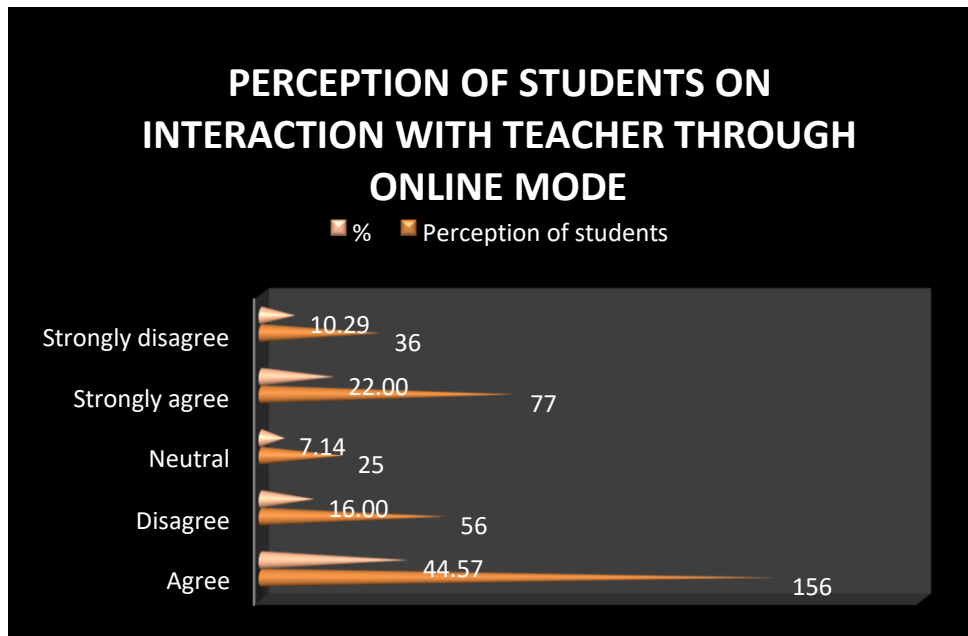


Figure 21: Diagram showing perception of students with teachers interaction through online mode (Source - self)

Response indicators	Perception of students	%
Agree	156	44.57
Disagree	56	16.00
Neutral	25	7.14
Strongly agree	77	22.00
Strongly disagree	36	10.29

Table 8: Table below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

It has been analyzed that 44.57% of the students are of the perception that they do not make appropriate interaction with teachers during online education system. Further, 16% of the students have shown their disagreement to this that are of opinion that they have interaction with their teachers in an appropriate manner in a personal and with same feelings as in class. Moreover, 7.14% are of neutral to this and 22% strongly agree whereas 10.29% strongly disagree. Overall, maximum numbers of students are of perception that they lack same feeling as they have with the teachers in the class and interaction with the teacher has reduced. The reason behind such positive perception of students on this is because some students actively participate in interacting with teachers while some find it difficult to interact during class and was able to make interaction after class by way of one to one interaction. But such practices are not possible in online education and during the class or after class query session the student need to make interaction with the teacher for obtaining any sort of information. Thus different perceptions have arrived on such question due to this reason of active or non-participating ability of students.

Q6. Whether cases of academic dishonesty have increased due to online education system which initiated as a result of COVID-19 post-pandemic?

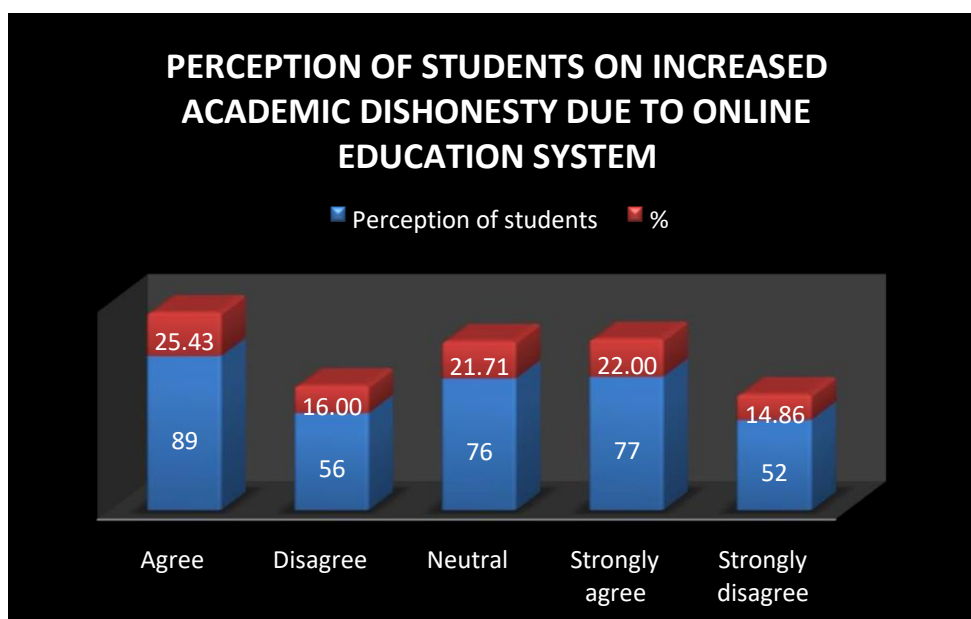


Figure 22: Diagram showing perception of students on increased academic dishonesty due to online education system

Response indicators	Perception of students	%
Agree	89	25.43
Disagree	56	16.00
Neutral	76	21.71
Strongly agree	77	22.00
Strongly disagree	52	14.86

Table 9: Table below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

It has been analyzed that 25.43% of the students are of the opinion that the cases of academic dishonesty has increased due to online education system whereas 16% shows disagreement on the same. Moreover, 21.71% are neutral which means they are of perception that academic dishonesty is same like any other education mode. Further, 22% shows strong agreement to the fact that academic dishonesty has increased and to the contrary 14.86% strongly disagrees to such fact. There may many reasons for such agreement and disagreement but the most obvious options which appear to us was students are new to the online system and some did not know how academic breaches are taking place so they strongly disagree and remain neutral to such question. But on the other hand some students may come across such cases where they or their friends might have received notices of academic misconduct which make them aware that there are possibility more that offline education system of academic dishonesty.

Q7. Whether the online education system has created the situation resulting in increasing avoidance attitude of student's towards study?

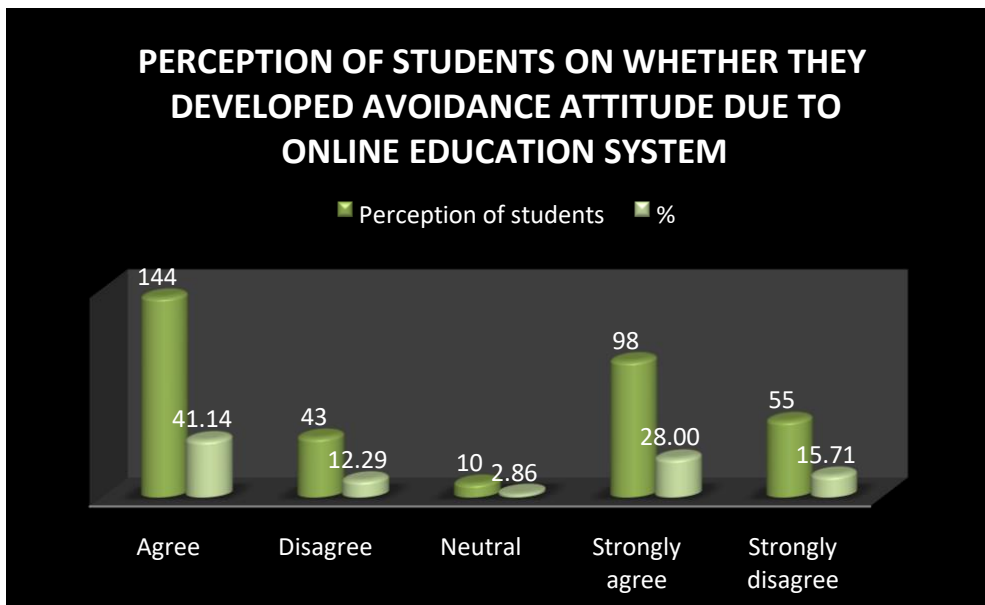


Figure 23: Diagram showing whether avoidance attitude is developed among students due to online education system

Response indicators	Perception of students	%
Agree	144	41.14
Disagree	43	12.29
Neutral	10	2.86
Strongly agree	98	28.00
Strongly disagree	55	15.71

Table 10: Table below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

The analysis have been made on the response received from respondents that 41.14% of the students agree to this that students have developed avoidance attitude towards study with online education whereas 12.29% disagrees on the same. Only 2.86% remains neutral and 28% shows strong agreement and 15.71% shows string disagreement. While assessing the reasons for such perception of students it has been analyzed that students are taking the online classes grantedly as they have the option to access the recorded classes as well. Due to this they ignore their live classes and has developed an avoidance approach or attitude.

Q8. Whether sufficient resources such as internet, computer or laptop to transform into online learning are available to students?

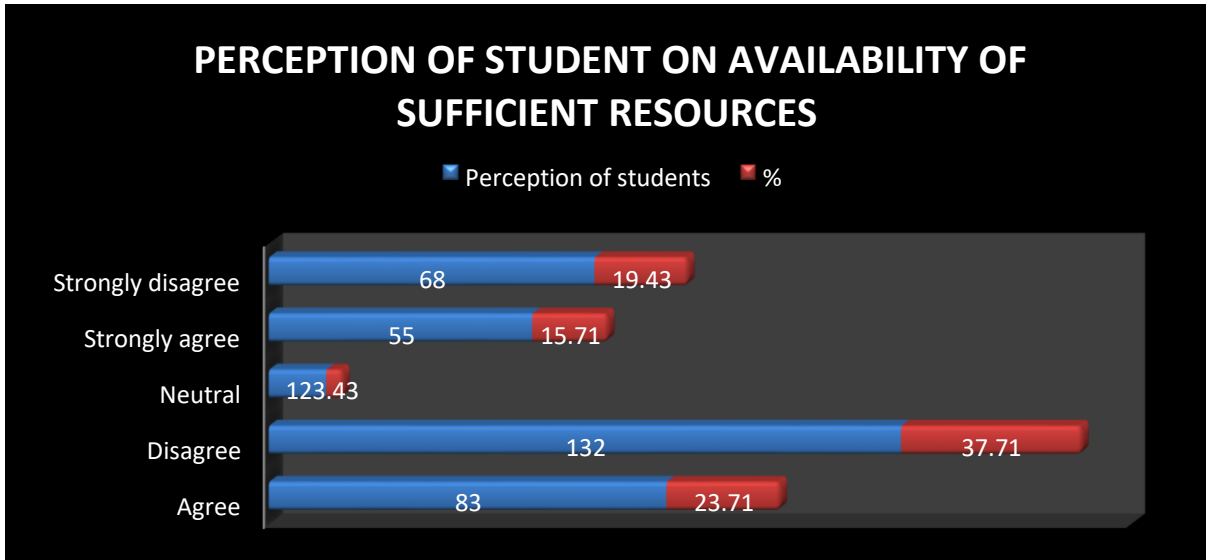


Figure 24: Diagram showing perception of students on availability of sufficient resources for online education

Response indicators	Perception of students	%
Agree	83	23.71
Disagree	132	37.71
Neutral	12	3.43
Strongly agree	55	15.71
Strongly disagree	68	19.43

Table 11: Table below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

The analysis of the responses received on the question whether student had sufficient resources to transform into online learning shows that 37.71 % + 19.43% of students among the sample respondents disagreed which shows that more than 50% of the population did not had sufficient resource to continue their learning through online an digital mode, this is due to the income inequalities and lack of infrastructure support. Students belonging to lower middle income families had to struggle in making arrangement for devices required to continue their education through digital mode. However, there was a section of students which 23.17% + 15.71% which is approximately 39% who gave a positive response to the availability of the resources. This shows a wider gap in teaching learning process due to covid-19 post-pandemic.

Q9. Whether issues of depression, anxiety and stress have increased among the students during the period of post-pandemic with change in education system?

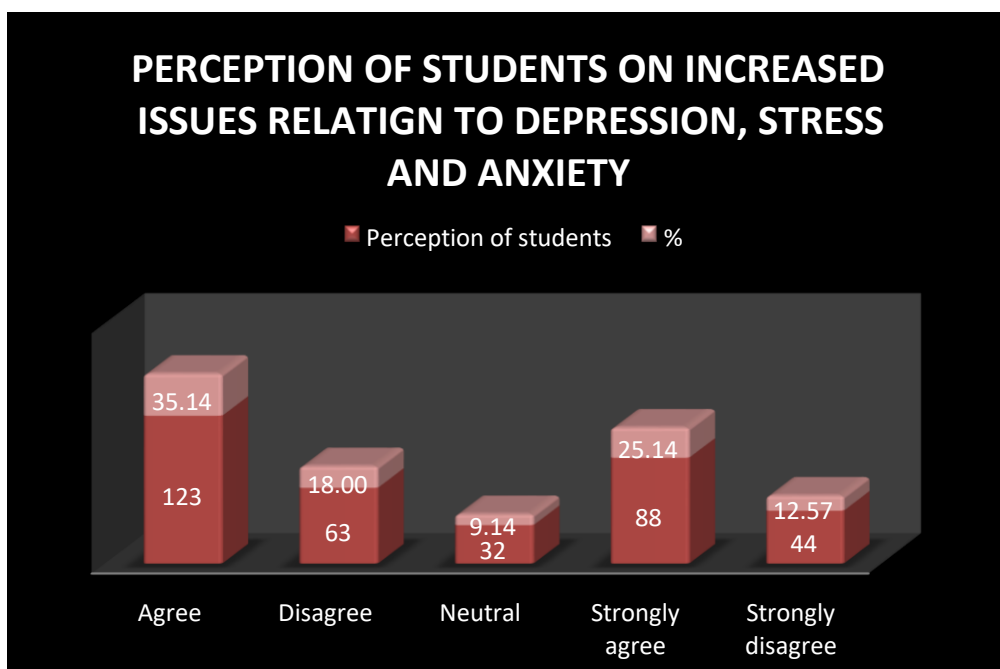


Figure 25: Diagram showing perception of students on increased issues relating to anxiety, depression and stress

The results of the responses on the question of increase in the issues of depression, anxiety and stress among the students during post-pandemic with change in education system shows that 25.14% of respondents gave a strong agreement to the impact while 35.14% respondent

Response indicators	Perception of students	%
Agree	123	35.14
Disagree	63	18.00
Neutral	32	9.14
Strongly agree	88	25.14
Strongly disagree	44	12.57

Table 12: below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

gave a normal agreement to the issue. This shows that there was a significant increase in the level of stress, depression and anxiety among students due to sudden change in learning process. This can be due to lack of knowledge about technology, lack of support from family and reduced interaction with teachers and peers. However, there are approximately 30% in the respondent who did not felt any psychological impact due to change in education system, and this can be

due to their continued experience with information and technology, that enables them in coping with the increased dependency on digital mode. Also, the difference in the responses can be due to individual perception and willingness to accept change.

Q14. How the relationship of the students with parents has changed during post-pandemic?

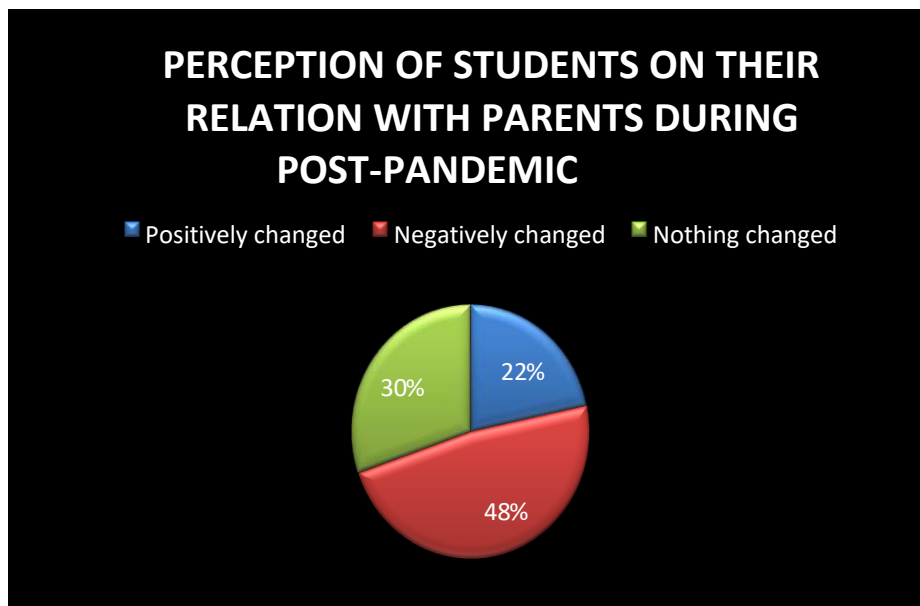


Figure 26: Diagram showing to what extent relationship of students with their parents have changed or not changed

Response indicators	Perception of students	%
Positively changed	76	21.71
Negatively changed	168	48.00
Nothing changed	106	30.29

Table 13: Table below reflects the number of respondents' perception on different impacts on education system and their learning experience through online mode, where n = 350

The analysis of, the extent to which relationship of students with their parents have changed, responses shows a negative change in the relationship between parents and students where 48% of respondent selected negative change while only 21.71% sated a positive change and 30.29% experienced no change in their relations with parents. The negative change can be due to psychological impact of the situation where parents were under lot of economic pressure and security concern for their family leading to frustration irritation among the members, also an increase in the case of domestic violence can be a reason for negative response. The

confinement of space affected the privacy needs of students as well as parents which caused friction in their behavior. However, looking at the positive side, the interaction between parents and students increased which encouraged them to get indulge into group activities and more family time leading to a positive impact on relationship.

9.6 Post-pandemic situation in Turkey

The COVID-19 post-pandemic has left an indelible mark on societies worldwide, and Turkey is no exception. As the country grapples with the aftermath of this global crisis, navigating the post-pandemic landscape poses multifaceted challenges across various sectors. From healthcare and economy to education and social cohesion, the repercussions of the pandemic continue to reverberate throughout Turkish society.

9.6.1 Healthcare Resilience and Recovery

Turkey's response to the post-pandemic showcased the resilience of its healthcare system in the face of unprecedented challenges. Early interventions, including strict lockdown measures and robust testing strategies, helped mitigate the spread of the virus and alleviate pressure on hospitals. Furthermore, the rapid vaccination campaign, which prioritized vulnerable populations and essential workers, played a pivotal role in containing the post-pandemic and paving the way for recovery.

However, the post-pandemic period brings new challenges for Turkey's healthcare system. As the focus shifts from crisis management to long-term sustainability, efforts must be directed towards strengthening healthcare infrastructure, enhancing capacity in anticipation of future health emergencies, and addressing disparities in access to healthcare services. Moreover, the psychological toll of the pandemic on healthcare workers cannot be overstated, necessitating comprehensive support mechanisms to safeguard their well-being.

9.6.2 Economic Rebuilding and Resilience

The economic fallout of the post-pandemic has been profound, with Turkey experiencing a contraction in GDP and rising unemployment rates. The closure of businesses, disruptions in supply chains, and restrictions on international travel have dealt a severe blow to various sectors, particularly tourism and hospitality. Additionally, the depreciation of the Turkish lira and inflationary pressures have further compounded economic challenges, exacerbating the plight of vulnerable populations.

As Turkey embarks on the path to economic recovery, concerted efforts are required to stimulate growth, create employment opportunities, and address structural weaknesses in the economy. This entails implementing targeted fiscal stimulus measures, promoting investment in key sectors such as technology and renewable energy, and fostering entrepreneurship and innovation. Furthermore, enhancing social safety nets and aiding small and medium-sized enterprises (SMEs) are crucial components of a comprehensive recovery strategy.

9.6.3 Education Transformation and Adaptation

The post-pandemic has brought about a paradigm shift in the education landscape, prompting a rapid transition to online learning modalities. In Turkey, as elsewhere, this shift has exposed disparities in access to technology and internet connectivity, widening existing inequalities in education. Moreover, the closure of schools has disrupted traditional learning environments, posing challenges in maintaining student engagement and academic progress.

As Turkey's education system grapples with the aftermath of the post-pandemic, there is a pressing need to reimagine and reshape the way education is delivered. This entails harnessing the potential of technology to enhance learning outcomes, while also addressing the digital divide and ensuring equitable access to educational resources. Additionally, efforts must be made to support the socio-emotional well-being of students and create inclusive learning environments that cater to diverse needs.

9.6.4 Social Cohesion and Community Resilience

Beyond its impact on healthcare, economy, and education, the post-pandemic has tested the resilience of Turkey's social fabric. The imposition of lockdown measures and social distancing protocols has led to feelings of isolation and loneliness among many individuals, exacerbating mental health challenges. Furthermore, the post-pandemic has exposed pre-existing fault lines within society, including socioeconomic inequalities and disparities in access to essential services.

As Turkey emerges from the post-pandemic, fostering social cohesion and solidarity is paramount to rebuilding communities and strengthening resilience. This necessitates investing in social welfare programs, promoting dialogue and understanding across diverse communities, and empowering grassroots initiatives aimed at addressing local needs. Additionally, prioritizing mental health support services and destigmatizing seeking help are crucial steps towards promoting overall well-being and resilience.

9.6.5 Looking Ahead: Opportunities and Challenges

As Turkey navigates the post-pandemic landscape, it faces a unique opportunity to build back better and create a more inclusive and resilient society. However, realizing this vision requires concerted efforts from government, civil society, and the private sector, as well as active engagement from all segments of society. By leveraging lessons learned from the pandemic and embracing innovation and collaboration, Turkey can emerge stronger from this crisis and chart a path towards a brighter future for all its citizens.

10 Ethical Consideration

The research has been conducted using data from primary source which has been collected using questionnaire survey method. The questionnaire has been developed in a clear and precise manner which can be easily understandable by the readers without leading to confusion or ambiguity. The questionnaire was circulated through emails and other media channels to the students of universities, schools and other educational institutions and responses received are genuine and no attempt has been made in order to manipulate the responses. In order to maintain the integrity of the research the samples selected from the respondents have been done randomly and no fabrication to the data has been done in order to influence the outcome of the study.

10.1 Limitations

The research has been conducted to evaluate the consequences faced by Turkish education system and students, living within and outside country, due to post-covid-19 pandemic. The researcher has made all efforts in order to gather maximum data to ensure the integrity and authenticity of the study. However, there are certain limitations of the study that have been observed and are as follows:

The study has been limited to evaluate the consequences of post-pandemic faced by Turkish students only staying in the country and outside country.

The analysis for the responses received through questionnaire has been made using descriptive method only.

The study involves more responses from the students studying in universities rather than schools and other educational institutions. Also, the respondents are solely students and views of teachers and parents have not been taken in primary data.

10.2 Future research perspective

Research is an ongoing process and every research makes certain additions to past literatures and findings. The present study has explores the consequences of post-pandemic on the education sector of Turkey and Turkish students staying within country and outside country. The present research aims at making significant contribution to existing literature and provides future research directions which are as follows:

The population size can be expanded by including responses of parents, teachers and academic administration team to develop understanding of the consequences with a 360° view.

Statistical analysis of the data and hypothesis testing may provide more integrity and accuracy to the results in comparison to descriptive analysis.

Further future studies may focus more on determining psychological impact on the students due to post-pandemic.

10.3 SWOT Analysis

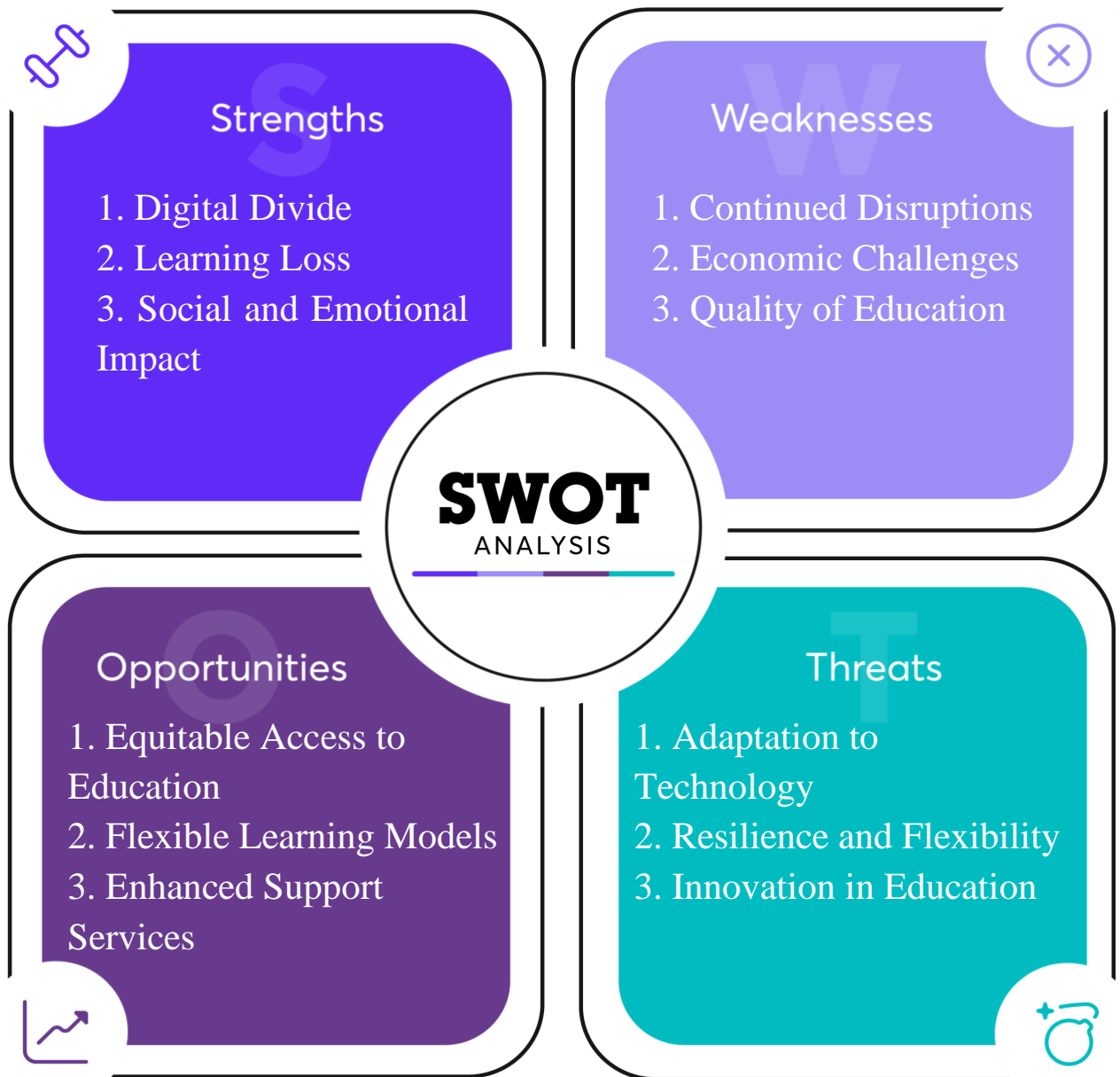


Figure 27: SWOT Analysis (Source- Self)

Strengths:

1. **Adaptation to Technology:** The pandemic necessitated a speedy shift to online mastering, mainly due to extended familiarity and skill ability with virtual gear and structures amongst Turkish college students.
2. **Resilience and Flexibility:** Despite disruptions due to faculty closures and far-flung mastering, Turkish college students confirmed resilience and flexibility in adjusting to new mastering environments and modes of instruction.
3. **Innovation in Education:** The post-pandemic length has spurred innovation in instructional practices, encouraging educators and policymakers to discover new procedures for coaching and mastering that cater to numerous pupil needs.

Weaknesses:

1. **Digital Divide:** Disparities in getting the right of entry to to era and net connectivity persist amongst Turkish college students, exacerbating inequalities in training and hindering the effectiveness of online mastering initiatives.
2. **Learning Loss:** Extended durations of faculty closures and disruptions in conventional mastering environments have ended in good-sized mastering loss amongst Turkish college students, specifically the ones from deprived backgrounds.
3. **Social and Emotional Impact:** The absence of in-character interplay with friends and educators has taken a toll on the social and emotional health of Turkish college students, mainly due to emotions of isolation, loneliness, and disengagement.

Opportunities:

1. **Equitable Access to Education:** The post-pandemic length gives the possibility to deal with the virtual divide and make certain equitable rights of entry to training for all Turkish college students through focused interventions and funding in era infrastructure.
2. **Flexible Learning Models:** There is a possibility to leverage the era to increase bendy mastering fashions that integrate online and in-character instruction, catering to person mastering patterns and preferences.
3. **Enhanced Support Services:** The awareness of pupil health and intellectual fitness inside the post-pandemic technology presents a possibility to beautify guide offerings and assets for Turkish college students, selling holistic improvement and educational achievement.

Threats:

1. **Continued Disruptions:** The opportunity of destiny waves of the pandemic or different unexpected crises poses a risk to the steadiness of the training machine in Turkey, probably main to in addition disruptions in mastering and educational progress.
2. **Economic Challenges:** Economic repercussions of the pandemic can also additionally bring about financial constraints and decreased investment for training, proscribing assets to be had for imposing powerful interventions and guide offerings for Turkish college students.
3. **Quality of Education:** The speedy transition to online mastering throughout the pandemic increases issues approximately the fine of training delivered, together with troubles associated with pedagogical effectiveness, pupil engagement, and educational integrity.

By thinking about those strengths, weaknesses, possibilities, and threats, policymakers and stakeholders can increase techniques to mitigate demanding situations and leverage possibilities to ensure the continuing resilience and achievement of the education in Turkey for all college students.

11 Conclusion

In cease, the post-pandemic era has undeniably left a profound impact on the schooling tool of Turkey, significantly affecting Turkish university college students. Through this case analysis, we've were given explored numerous dimensions of these consequences. The surprising shift to a long way off reading has highlighted disparities in access to era and internet connectivity among university college students, exacerbating gift inequalities in schooling. Additionally, the disruption due to the pandemic has brought on annoying conditions in preserving pupil engagement and motivation, similarly to problems regarding the awesome of schooling added thru on-line platforms. Moreover, the social and emotional well-being of Turkish university college students has been significantly tormented by the isolation and uncertainty added about with the useful resource of the usage of the post-pandemic.

The lack of in-man or woman interaction with buddies and teachers has raised problems about the development of critical social skills and emotional resilience among university college students. Furthermore, the closure of faculties has disrupted extracurricular sports activities and opportunities for holistic development, which may be vital components of the schooling experience. As Turkey navigates the healing phase and transitions decrease again to in-man or woman reading, it's miles essential for policymakers and educators to address the multifaceted annoying conditions faced withthe useful resource of the usage of university college students. Efforts need to be made to bridge the digital divide and ensure equitable access to schooling for all university college students.

Additionally, there can be a need for centered interventions to help the socio-emotional well-being of university college students and re-installation a sense of normalcy and ordinary in their lives. Moving forward, commands discovered out from the pandemic want to inform long-term reforms withinside the schooling tool, emphasizing flexibility, resilience, and innovation. By harnessing the potential of era and adopting a holistic technique to schooling, Turkey can emerge stronger from this catastrophe and create a extra inclusive and sturdy schooling toolthat caters to the severa needs of its university college students. Ultimately, the post-pandemic era provides an opportunity for Turkey to reimagine and reshape its schooling landscape, ensuring that every pupil has the opportunity to thrive and attain an ever-changing world.

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13 Appendix

Appendix 1: Survey Questionnaire

DEMOGRAPHIC INFORMATION

Q1. In which age category do you fall?

- 15-19 years olds
- 19-22 years old
- 22-25 years old
- Above 25 years old

Q2. What is your gender?

- Male
- Female
- Transgender
- Prefer not to say

Q3. What is current status of your school and graduation level?

- Secondary and Higher secondary
- Undergraduate
- Post – graduate/Diploma
- Doctoral

Q4. What is the current location of your school, university or institution for the course you are pursuing?

- In Turkey
- In some other foreign country

INFORMATION REGARDING EFFECT ON THE STUDY OF THE STUDENT'S DUE TO POST-COVID -19 PANDEMIC

Q5. Whether there is a transformation in the study pattern and activities such as submission of assignments, class room activities and more during post-COVID-19 pandemic?

- Agree
- Disagree
- Neutral
- Strongly Agree
- Strongly disagree

Q6. Does post-pandemic has an effect on the study load of student's?

- Not affected
- Moderately affected
- Neutral
- Highly affected

INFORMATION REGARDING PERCEPTION OF THE STUDENT'S ON ONLINE EDUCATION SYSTEM ADOPTED DURING THE PERIOD OF POST-COVID -19 PANDEMIC

Q7. Whether online learning has resulted as a viable option for learning as compared to physical or face to face classes' environment?

- Agree
- Disagree
- Neutral
- Strongly Agree
- Strongly disagree

Q8. Whether students learn less through online classes?

- Agree
- Disagree
- Neutral
- Strongly Agree
- Strongly disagree

Q9. Whether interaction with the teachers seems impersonal and lacks the feeling as compared to physical classes?

- Agree
- Disagree
- Neutral
- Strongly Agree
- Strongly disagree

Q10. Whether cases of academic dishonesty have increased due to online education system which initiated as a result of post-COVID-19 pandemic?

- Agree
- Disagree
- Neutral
- Strongly Agree
- Strongly disagree

Q11. Whether the online education system has created the situation resulting in increasing avoidance attitude of student's towards study?

- Agree
- Disagree
- Neutral
- Strongly Agree
- Strongly disagree

GENERAL INFORMATION

Q12. Whether sufficient resources such as internet, computer or laptop to transform into online learning are available to students?

- Agree
- Disagree
- Neutral
- Strongly Agree
- Strongly disagree

Q13. Whether issues of depression, anxiety and stress have increased among the students during the period of post-pandemic with change in education system?

- Agree
- Disagree

- Neutral
- Strongly Agree
- Strongly disagree

Q14. How the relationship of the students with parents has changed during post-pandemic?

- Positively changed
- Negatively changed
- Nothing changed