Functioning of Private Tutorial Centres during Covid-19 Pandemic: Challenges and Prospects

DISSERTATION SUBMITTED TO THE NATIONAL INSTITUTE OF EDUCATIONAL PLANNING AND ADMINISTRATION, NEW DELHI IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF

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DECLARATION

Date: 30th April 2022

I Aishwarya Sharma, hereby declare that this M.Phil. Dissertation entitled 'Functioning of Private Tutorial Centres during Covid-19 Pandemic: Challenges and Prospects' is based on my original research work, and to the best of my knowledge, has not been submitted in whole or in part in this University or in any other University for the award of any degree.

Aishwarya Sharma

CERTIFICATE

This is to certify that the dissertation entitled 'Functioning of Private Tutorial Centres during Covid-19 Pandemic: Challenges and Prospects' is the work undertaken by Ms. Aishwarya Sharma under the supervision of Dr. Neeru Snehi as part of her M.Phil. degree. We recommend that this dissertation be placed before the examiner(s) for evaluation and award of the degree of M.Phil.

Signature of Department Head

Supervisor's Signature

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Table of content

Illustrations

Tables

Figures

Chapter-1

Introduction to the Study

1.1 Research Background

The start of the year 2020 took an unprecedented detour from what people expected; the coronavirus disease (Covid-19) outbreak became an international health incident that led to health emergencies worldwide. Governments in every corner created guidelines to curtail the escalating number of cases. One of them was to limit in-person activities as far as possible to reduce the spread of the infection. And, therefore activity in various industries and institutions was either ceased or was assigned a remote status. This move deeply affected the global economy (e.g., Dhawan,2020; Giles,2020; Iliško&Venkatesan,2021).

The education sector was no exception. But, unlike other sectors, its foundation lies in stimulating teaching-learning processes through meaningful interactions between a teacher, learner, and peers in a conducive environment. With the covid-19 pandemic, the conventional ways of imparting knowledge were challenged. The sector had to take a considerable deviation from the usual procedures and modify/develop alternatives for teaching-learning practices. Tilak (2021) argues that the effects of the pandemic-led disruption would be long-lasting. A recent article (Thapar, 2022) encapsulated the interview of Anurag Behar (Vice-chancellor of Azim Premji University), stating that as many as 230 million children will face the worst education crisis in India because of missing out on two school years.

Today, the Coronavirus pandemic has affected the education system globally. The pandemic blighted the world, and more than 1.6 billion learners had their schooling interrupted as the schools were closed temporarily (UNESCO, 2020). This upsetting disturbance to education changed the lives of many students and their families suddenly and in many aspects. From an aggregate perspective, the United Nations announced that the "COVID- 19 pandemic has led to the largest disruption of education ever" (Guterres, 2020). The governments of different nations decided to continue imparting education via an online learning system (change of mode from offline to online) with the hope of preventing the spread of the Covid-19 virus.

The outbreak forced the long-established in-person learning method to turn online using all available media (Nurlaili&Budiyanto,2021). Despite the lack of preparedness among teachers and students, the education system was compelled to habituate itself suddenly to a completely contrasting 'online environment' for the sake of maximizing value for its students (Suneja & Bagai, 2021). The use of television and radio was seen prevalent in African countries; however, online learning and television were extensively used in Asian countries. India also employed the old traditional media of distance education, but the online method of teaching and learning was dominant (Tilak, 2021).

As educational institutes scrambled to move online, each one of them had varying resources and student considerations. India has a variety of schools ranging from elite to low-fee private and public-funded government schools. Few elite and high-fee private schools already had full-

fledged online learning infrastructure, with information technology assistance and online instructional design; on the other hand of the spectrum are the low-fee private and government schools that utilized more traditional teaching tools, with chalk-duster and pen-paper as teaching-learning material and followed low usage of learning management systems. (Mirroring to this can be witnessed in the shadow sector, which is the focus of the present research).

Heng (2021) suggests that in the context of Industry 4.0, technology holds a significant role in socio-economic innovation and development. He further adds that the pandemic induced ICT adoption in the education system as the reliance on traditional face-to-face classes was unhelpful and inefficient. The complete lockdown compelled educational institutes to realize the need for/and strengthen their technical infrastructure and services (Jena, 2020, cited in Suneja & Bagai, 2021, pg.1). The most crucial determinant concerning online education is technology acceptance in teaching. Mitchell (2009), through an in-depth case study on an educational institute, concludes that professional development played a large part in altering facilitators' and administrators' opinions about online education. The conduction of a mandatory online training program gave firsthand experience in an online setting and addressed concerns related to an online teaching-learning environment.

Cullinane and Montacute (2020) argue that a sudden shift/transition to an online environment posed problems for schools and tutorial agencies. There have been a significant number of studies focusing on the impact of covid-19 on the formal schooling system both at the international and national levels (see, e.g., Pellegrini & Maltinti, (2020); Suneja & Bagai, 2021; Tilak, 2021), ranging from difficulties in the management and functioning of schools, lack of required infrastructure, struggles of teachers and students in an online environment, to learning loss beyond repairment. The non-formal sector, such as the private tutorial business centre, received little attention in research writing. The purpose of the present study is to fill this research gap by focusing on the experiences of private tutorial providers during the Covid-19 pandemic in the context of India.

In academic writing, private supplementary tutoring is widely known as 'Shadow Education.' It is not a new phenomenon and has been practiced for quite many years around the globe. In line with much existing international and national literature (e.g., Bray 1999; Lee et al. 2009; Sujatha 2014; Malik 2017), the phenomenon of paid private supplementary tutoring is defined as tutoring in academic subjects that takes place outside formal school hours to supplement within school academic subjects and is provided in exchange for a fee. This understanding has been broadened with the waves of globalization, technological advancements, marketization, and increasing cut-throat competition. It varies contextually.

Researchers (Bray,1999; Sujatha, 2014; Majumdar, 2017) have argued that in India, it is perceived as an essential & unavoidable part of students' lives, seen as an aspiration of the middle class and an ambition of the lower class. According to a report by the Associated Chambers of Commerce and Industry of India (ASSOCHAM, 2013), In the metro cities, 87% of the primary school students and up to 95% of the high school students take private tutoring. And yet, this shadow education system remains understudied. A considerable number of existing literature in India focuses on the receiving end, such as the factors of students' and parents' perspectives, demand, cause, and the effectiveness of private tutoring (see, e.g., Snehi, 2010; Sujatha, 2014; Majumdar, 2014; Sharma,2019). The other end of "providers" has

received little or no attention. Though, since the second decade, international studies have shifted their focus on the supply side of tutoring with an ever-increasing recognition of the role of technology (Zhang&Bray,2020).

"India has a very high rate of tutoring" (Ghosh&Bray,2018). Still, there is no such national policy focusing on the phenomenon. Though the state and central government have framed various regulations to control the negative implications of private supplementary tutoring, there's an absolute absence of any reform measures for the sector during adversity or, in the context of the present study, a Covid-19 pandemic-led crisis.

Reviewing the results of their study, Wilson and Holloway (2021, p.71,74) concluded that the "Covid-19 related disruption to schooling produced a profound economic shock for the tuition industry, though new opportunities also emerged from the crisis". The authors further add that there cannot be a single narrative to describe the impact of the pandemic on private tutoring. Therefore, an in-depth and critical examination is required in different contexts.

Many news and research articles have highlighted the financial crisis faced by the tutoring centers caused by the pandemic-led crisis (see, e.g., Rumi,2020; Sharma(a), 2020; Sharma(b), 2020; Parray, 2021; Choubey, 2021; Jha, 2021; Wilson & Holloway,2022). Tutorial institutions are commonly forced to change in order to survive; the financial aspect pushes them to innovate and adapt to the new opportunities, trends, or challenges (see, e.g., Zhang & Bray,2020; Bray,2021). Not only this, but a recent study formulated by Palanisamy and Sulaiman (2020) concludes that tutor readiness, tutoring centre readiness, and student accessibility stand vital to conducting online tutoring successfully. Therefore, a lot of factors are responsible for painting this picture.

Zhang and Bray (2020) elaborate on the case of China, where online tutoring facilitated by venture investments and technological advances became a significant activity. The years of experience paved the way for the major online tutoring providers during the Covid-19 crisis. They now have rich experience in teaching, service, and management, have a good number of e-resources, built infrastructures such as virtual laboratories, classrooms, and assessment tools, and have efficient teams for online tutoring. Li and Lalani (2020) argue that even before the Covid-19 pandemic, there was already an increase in growth and adoption of education technology such as virtual tutoring, video conferencing tools, or online learning software. However, there has been a significant surge in usage since the corona pandemic. In India, the situation is quite similar; the private sector developed new forms of coaching that promise to deliver a wide range of services online (Tilak, 2021).

Online tutoring has dramatically expanded the shadow space and has brought the shadow industry "out of the shadows" with its wide-ranging presence. Computers and the internet seem to have facilitated the growth of online tutoring support as the media of learning for students across countless branches of disciplines (Guy & Lownes-Jackson, 2012, as cited in Sembiring, 2018). A recent study outlined by Zhang and Bray (2020) presents a detailed classification of modes of delivery that showcases the diversified forms, providers, and seasons of tutoring. The classification recognizes two technology-based developing forms of tutoring, i.e., online tutoring and dual-tutor. The online format of tutoring considers live, recorded, mixed sessions. The dual-tutor employs live tutors operating through the internet in conjunction with teaching assistants in classrooms many kilometers away and about Artificial Intelligence-based tutoring in place of live tutors. Bray (2021) claims that "Online tutoring was given a great boost by the

covid-19 pandemic that hit the world in 2020 and closed large numbers of schools. This will be seen as a great watershed moment for online tutoring, and perhaps for shadow education as a whole".

A major challenge for the tutorial centres was to change the organizational rules and models for imparting lessons thoroughly. Implementing online education involves immediate changes to technological and organizational structures (Mitchell, 2009). Technology is needed to create an infrastructure to support online teaching, and for the daily administrative functions, an organizational structure has to be developed. Nurlaili and Budiyanto (2021), through secondary data collection (news articles, scientific articles, etc.), argue that the non-formal education sector, such as the Tutoring agencies, have experienced difficulty in adopting and adapting to the new marketing mix.

Exploratory research by Sembiring (2018) concluded that tutor learning strategy is the most influential factor to an effective online tutoring program, followed by the perception of technology and rationale for using the internet. This means that the strategies of a tutor, their way of managing activities, engaging students in sessions stand most important for an effective online class. Similar to this was indicated by the findings presented by Gopal et al. 2021 that instructor's quality is the most prominent factor that affects students' satisfaction during online classes. Therefore, an instructor needs to be efficient and enthusiastic during online classes.

In this context, the present research has explored the experiences of tutoring providers in terms of what kind of challenges they have faced during the pandemic and how they have responded to them. Notably, how the centres were functioning amidst the crisis. Johns & Mills (2021) have argued that tutoring centres underwent a rapid and unexpected organizational change in response to the crisis. Because the situation necessitated quick decision-making, many centres turned to familiar technology and attempted to recreate the face-to-face experience online.

Taking from this, the research has tried to study the private tutorial centres' response to the pandemic-led crisis. The focus is on functioning and the required changes they had to adopt to sustain their business. The extent of use of technology stands as one of the most crucial factors.

1.2 Purpose of the study

The primary purpose of the present study is to explore the experiences of the private tutorial providers during the covid-19 pandemic. It has attempted to present a holistic picture of the phenomenon by considering the viewpoints of three key stakeholders, i.e., tutorial centre owners/leaders, tutors, and students. This stands essential for unfolding the various aspects critical to understanding the know-how of the functioning of these tutorial centres.

In shadow education research, a limited number of studies have considered the aspects of the supply side. Significant work had been done on the demand side, focusing on the global mapping of the phenomenon. This study contributes to the under-researched end, i.e., the dispensing end of the phenomenon. The work stands unique in its approach that links shadow education with technology and change. The construction of an interdisciplinary lens has helped the researcher build meaningful connections between several related factors.

The pandemic-led crisis has dismantled the worldwide education system. Both formal and non-formal sectors of education were greatly affected. Many research studies have focused on the impact of the pandemic on mainstream schooling. But only a handful talks about the non-formal sector, specifically the private tutorial centres. Therefore, this study sets its purpose in filling this research gap.

The first objective of this study is to identify the changes that have taken place in the functioning of the private tutorial centres: it aims to present pre and during the pandemic scenario. The second objective develops further from the first objective and seeks to examine the pedagogical strategies designed by the providers to successfully conduct classes in an online environment. The third objective studies the challenges faced and opportunities perceived by the providers. This also served as the base to understand how these providers envision the teaching-learning practices post-covid (in the future).

Objectives of the study-

The proposed study is situated in the context of Covid-19 pandemic. The objectives are as follows-

- To identify the changes that have occurred in the functioning of private tutorial centres.
- To examine the pedagogical strategies developed by the tutors for the conduction of online classes.
- To study the challenges and opportunities as perceived by private tutorial providers in the near future.

1.3 Research Questions

The proposed study is situated in the context of the Covid-19 pandemic. The research questions are as follows-

1. What changes took place in the management and delivery mechanism of private tutoring?
2. How do private tutorial providers modify their pedagogy to conduct online classes?
3. What challenges do tutorial providers face in an online learning environment?
4. How do private tutorial providers plan to continue their teaching-learning practices in the near future?

1.4 Operational Definition and Parameters of the exploration

Private supplementary tutoring is widely known as shadow education in academic writing. Researchers worldwide have tried to understand and define the phenomenon by coining different terms (e.g., tutoring, supplementary tutoring, private tuitions, paid private supplementary tutoring, cramming, coaching, shadow education). For the current research, shadow education is understood in terms of three key parameters elaborated by Bray (1999). These are privateness, tutoring in academic subjects, and supplementation.

(i) Privateness highlights the financial aspect of tutoring, i.e., fee-paying. This does not consider the tutoring provided by family/community members with no monetary part.
(ii) Tutoring in academic subjects, mainly those related to academic examinations. Artistic, sporty, and other extra-curricular activities are usually meant for pleasure and overall development (Zhang&Bray,2020). Hence, they are not considered.
(iii) Supplementation indicates the connection between the content of mainstream schooling with tutoring. This covers the academic subjects taught in school.

To avoid confusion and display a clear picture of the parameters employed in selecting private tutorial centres. The present study uses the typology of private tutoring constructed and employed by Feng (2020 pg.41). The following dimensions are used to classify private tutoring:

1. Size: number of students, whether delivery of tutoring is on a one-to-one basis, in small groups, at large lecture-styled classes
2. Media: whether tutoring uses face-to-face tutorials, video recordings, live internet streaming, or other forms as the media of instruction.
3. Provision: the provider of tutoring- independent individuals (e.g., independent tutors, housewives, university students, retirees), private organizations, semi-public individuals (e.g., school teachers), or public organizations (e.g., schools, universities, social services, or communities).
4. Curriculum: whether tutoring is done in academic or non-academic subjects (music, arts, etc.) and whether these subjects are part of the domestic or foreign curriculum. This can vary contextually.
5. Purpose: the reason to opt for tutoring (students or parents), whether tutoring is provided for remedial reasons or for achievements in examinations
6. Levels: whether they are provided to pre-primary, primary, secondary, or post-secondary levels of students.

The present research uses private supplementary tutoring, private tutoring, and shadow education interchangeably to describe the phenomenon. The study focuses on small-scale enterprises (private organizations), i.e., the neighborhood tutorial centres concerned with providing tutoring in academic subjects, specifically, Mathematics and Sciences. Regarding the level of education, the study is limited to tutoring for secondary school students. And as the study is situated in the period of the Covid-19 pandemic, the role of technology and media is yet another critical dimension to be emphasized upon.

1.5 Methodological Framework

Various challenges can be encountered by a researcher working in the field of private supplementary tutoring. One of them is employing appropriate methodological choices (Feng, 2020). Due to the diversified and hidden nature of the shadow industry, it becomes difficult for the researcher to make a sound decision concerning the kind of methodological apparatus they should adopt. This requires an in-depth reading of the different research methodologies employed by other researchers in the same field. And then tailoring or adopting the approaches according to the specific context in which the study is situated. Not only this, but the methodology chosen should be able to give answers to the research questions. Therefore, this is a rigorous and time-consuming process that requires effort on the researcher's part.

The present study has laid its emphasis on presenting a comprehensive picture of the functional aspect of individual tutorial centres during the Covid-19 pandemic in Yamuna Vihar, Delhi (northeast district). The study is qualitative in nature and has used an exploratory research design. Qualitative research is concerned with developing explanations of social phenomena. It offers opportunities for conducting exploratory and descriptive research that uses the context and setting to search for a deeper understanding of the person(s) being studied (Best & Khan,2006). For the purpose of this study, the qualitative exploratory design is suitable as it aims not to generalize but to present a comprehensive picture of the phenomenon at a particular geographical location during a specific period. It uses the participants' voices and experiences to interpret and explain what's happening in a certain context (Butler-Kisber, 2018).

Purposive sampling was used for data collection. Three centres were chosen based on (i) Grade: Secondary level- classes IX^{th} and X^{th} (ii) Subjects: Mathematics and Sciences (iii) Popularity: centres that cater to most of the students in the researcher's neighborhood (iv)Consent: centre's interest in the research. The objective was to interview individuals who currently hold a position and perform roles in recent times in a tutorial centre. And also to explore the diversity of this market. Therefore, participants in the present study were: tutorial Centre owners/leaders, tutors, and students. A heterogeneous sample was obtained, which was complex yet useful in presenting diversity.

The primary method used was to conduct semi-structured interviews with the participants for data collection. This was because it allows for direct bearing on the research objectives and to have direct responses from the participants. The first visit to the centres was done to gain trust, build rapport and fix a time for the interviews. The first round of data collection was done by conducting semi-structured interviews with the centers' leaders; this was done face-to-face. The second round focused on gathering data from the tutors of these centres; a separate semi-structured interview schedule was prepared for this purpose. And in-person interviews at the respective centre took place. The third round focused on collecting students' voices receiving tuition from these centres. One out of three student interviews was conducted telephonically. All the interviews were recorded by audio. These recordings were manually transcribed, and those transcriptions were used for data analysis. Apart from this, pictures of the centres were taken to display the infrastructure (set-up for the online learning environment), and archival and recent data like news articles were collected.

1.6 Significance of the Study

The study laid its foundation at such unpredictable times when the world faces health emergencies due to the coronavirus outbreak. Such global health emergencies have impacted every sector worldwide. The sudden disruption to the education sector has not only led to the development of alternatives in mainstream schooling but also in the functioning of the non-formal education sector. For the purpose of this study: individual private tutorial centres.

The primary significance of the present study lies in the original contribution it has made to the understudied side, i.e., the supply side of paid private supplementary tutoring in India. Zhang & Bray (2020) have highlighted the evolving research agenda in the field. The first decade aimed at global mapping, the second focused on the supply of tutoring, and the third aimed at the conceptualization for the future of education. The present research is a unique blend of the second and third decades. It has studied the supply side concerning the changes it had undergone due to the covid-19 pandemic. This study has gone further in envisioning the future of the phenomenon by taking an interdisciplinary lens.

The findings of this study may facilitate future work on the technology-driven structural changes that the tutorial centres had undergone during the pandemic in different geographical areas. The shadow industry is diversified, and many contextual factors affect its shape and size. Therefore, an in-depth examination of the phenomenon is crucial. It may also contribute in enriching the discourse on the kind of strategies that the tutorial centres can employ to sustain and be resilient in times of crisis.

The outcomes from the research shed light on the critical aspect of learning and how the online mode of tutoring has re-defined the notion of learning. This may help academicians, researchers, and other stakeholders in education to build a fresh perspective regarding the teaching-learning processes in an online environment.

1.7 Synopsis of the Dissertation

The entire work has been divided into seven major chapters, each has focused on significant aspects of the present research.

Chapter-1 has laid the foundation of the present research. The chapter has introduced the phenomenon and situated the study in the context of the covid-19 pandemic. It has elaborated on the research's objectives and presented the formulated research questions. It also highlights the significance of the study.

The second chapter (2) focuses on reviewing the related literature. It begins with an exploration of diverse kinds of terms used by different researchers to define the phenomenon under scrutiny and elaborates on the operational definition that the researcher had used to conceptualize shadow education.

The following chapter (3) elaborates on the methodological considerations in the design of the research and the data collection methods. It presents the overall methodological process of gaining access to the field, building trust, conducting interviews, transcribing, tabulating the data in matrices, and analyzing.

Chapter-4 commences by providing background information about the state of private tutoring during the covid-19 pandemic through secondary literature. It draws data from international and national news platforms and academic research articles. It then discusses the findings from the interviews of leaders (owners). It follows a logical sequence of presenting the results in sub-sections of pre-covid-19 and during the covid-19 pandemic.

Chapter-5 discusses the findings derived from the interviews of tutors and students of the respective centres. These findings have facilitated the triangulation of data. It has focused on highlighting the significant aspects of an online environment from the perspective of tutors and students. Elaborative discussions on pedagogy and learning have been presented in the chapter.

Chapter-6 calls attention to the current functioning of the three centres. It has highlighted the impact of using technology and has further described the leaders' vision for the future.

The concluding chapter (7) summarizes the study, highlighting the key findings. It situates the results within the research objectives and answers the research questions. The chapter also suggests best practices for effective online classes. It further discusses the implications and suggests ideas for future research.

Chapter 2

Walking through the literature

This chapter presents a rich review of the literature in shadow education and attempts to identify and frame/give an exposition of the relevant theories and concepts for the study. A new idea sets its base in the prior accumulated knowledge within a particular field of research. Therefore, it becomes vital to engage with past explorations before moving ahead. It is believed and veracious that previous research can allow a researcher to look for similarities, progress on the theme, identification of gaps, and can give insights on the kind of methodology.

The chapter begins with an exploration of diverse kinds of terms used by different researchers to define the phenomenon under scrutiny and elaborates on the operational definition that the researcher had used to conceptualize shadow education. The review's focus then shifts towards understanding the concept of functioning in educational research. It develops a framework for studying the functioning of private tutorial centres by setting key parameters. It tries to link the various aspects of undergoing change within small-scale for-profit organizations.

2.1 Defining Private Tutoring

Private supplementary tutoring is widely known as shadow education in academic writing. Researchers all over the world have tried to understand and define the phenomenon by coining different terms (e.g., tutoring, supplementary tutoring, private tuitions, paid private supplementary tutoring, cramming, coaching, shadow education). There are both overlapping similarities and stark differences among these terms, which need deeper scrutiny.

Terminology plays an essential role in building the understanding of any concept/phenomenon. It is the ‘label’ a researcher puts on, to differentiate one concept/phenomena from another and for the ease of audience and future research. It is important to note that terminologies used to identify private tutoring varies in different countries (contexts) as they are locally produced terms that try to explain the phenomenon. Gupta (2021) maintains that these terms are beneficial in explaining the phenomenon to some extent, but none clearly outlines the scope and boundaries of private tutoring. Malik (2017) challenges the different definitions and conceptualizations of shadow education, leading to ambiguities. He identifies flaws and suggests that the understanding needs to be modified with changing time and expanding boundaries of the field [Fig(2.1) shows the areas of conflict identified by Malik in defining the parameters of shadow education].

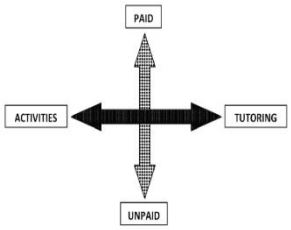

Fig-2.1 Areas of Conflict Source: Malik (2017)

Worldwide, researchers have used terms like paid and unpaid, pointing to the financial aspect of the phenomenon, making it a bit confusing for a naïve person. Similar can be seen with the kind of activities one considers to be categorized in defining the phenomenon. Lastly, the term 'tutoring' was conventionally used for one-to-one tutoring or small-group tutoring but now has broadened its meaning with technology. Recent research has shown that globalization, marketization, and technological advancements have led to the diversification of the tutoring industry (see, e.g., Buchmann et al., 2010; Ventura&Jang,2010; Bhorkar&Bray,2018; Zhang&Bray,2020). Therefore, through this sub-section, the focus would be on painting a comprehensive picture of the phenomenon drawing on diverse international research.

2.1.1 Shadow Education

Marimuthu et al. (1991) first suggested the term shadow education in a Malaysian study. It was then used in the title of a research paper about Japan in 1992 by Steveson and Baker. However, it was Mark Bray who brought the term to the attention of public and educational policymakers with his elaborated writings and wide-ranging global projects on the phenomenon.

Different researchers, in different senses, have used the metaphor of 'shadow.' Park & Lee (2012) argues that the metaphor of 'shadow' was used by Steveson & Baker to denote the strong connection between the allocation of rules in both formal and non-formal schooling. They were concerned about two activities (i) during school careers and (ii) transition to university and then to the workplace. Whereas Bray (1999) used it to emphasize the fact that shadow education exists in connection with mainstream schooling, specifically to improve the students' performance in the school-taught subjects. He (referring to Bray) outlines three dimensions to help understand and define the nature of the phenomenon. These were (i) 'supplementation' indicating the connection between the content of the mainstream schooling with tutoring, (ii) 'privateness,' which highlights the financial aspect of tutoring, i.e., fee-paying, and (iii) tutoring concerned only with 'academic' subjects. He further elucidated the reasons for using the phrase 'shadow education' to refer to private supplementary tutoring in his work (2010), "Blurring boundaries: the growing visibility, evolving forms and complex implications of private supplementary tutoring," by stating:

"First, private supplementary tutoring only exists because the mainstream education system exists; second, as the size and shape of the mainstream system change, so do the size and shape of supplementary tutoring; third, in almost all societies, much more attention focuses on the

mainstream than on its shadow; and fourth, the features of the shadow system are much less distinct than those of the mainstream system."

Bray and Lykins (2012 pg. 1) presented one more reason to show the appropriateness of the term 'shadow' by taking an example of a sundial in an effort to direct the researchers and policy-makers attention towards the features of mainstream schooling:

"The shadow cast by a sundial can tell observers about the time of day, and the shadow of an education system may tell observers about the features of mainstream school systems."

Gupta (2021), using international literature, found that the most common way in which tutorial enterprises are referred to is with the label 'shadow education'.

In a recent research paper, Bray (2021, p.2) extensively studies the geographies of shadow education and calls it a multifaceted phenomenon, which has parts extending beyond mere mimicry of the formal education system. One can witness this in the changing era, where shadow educational institutes are overshadowing the formal system of education. Not only this, but the industry has outgrown its traditional model of operation and is utilizing technology to communicate with the masses worldwide. The limits of physical space continue to exist for the formal schooling but not for the tutoring providers engaged in profit-making.

2.1.2 Private Supplementary Tutoring

The term 'private' is understood by various researchers differently. Bray and Kobakhide (2014) outline three meanings associated with the term; these are: (i) private as fee-based, (ii) private as a private location of tutor/tutee (iii) private as one-to-one tutoring. Feng (2021) adds a fourth (iv), meaning that is private as non-publicly owned identities. The second term, 'supplementary,' also needs scrutiny. Bray (1999) used the term to show the connection between the content of formal schooling with that of tutoring. But we can see different interpretations globally. Some private tutoring compositions have added additional content to the regular school curriculum rather than mimicking it. It can be both academic and non-academic extra-curricular activities. The third term, 'tutoring,' was mainly used to emphasize one-to-one tutorials by a tutor or small group instruction (e.g., Bray & Kobakhide,2014; Malik,2017). With technological developments, this was challenged, and researchers started using tutoring for many other mediums and types such as large class sizes, computer-assisted learning, internet-based learning with live classes, or recorded lectures (e.g., see Ventura &Jang, 2010; Malik,2017; Zhang & Bray, 2020; Bray, 2020). These varying interpretations of the term generate ambiguities (see, e.g., Malik,2017; Feng&Bray,2019). Therefore, a researcher should be mindful of understanding and using these terms in different contexts.

2.1.3 Private Coaching and Private tuitions

Coaching is a descriptive term with diverse meanings in different disciplines/fields. Even in the educational sector, the difference can be seen in using coaching for sporty activities and coaching in academic subjects. In shadow education research, the term coaching is used differently contextually. It is widely used in South Asian countries.

Private coaching is a term commonly used in the context of India and is found in the writings of most Indian researchers to describe tutoring (see, e.g., Atherton & Aslam, 2012; Majumdar, 2014; Sujatha, 2014; Sarkar & Mitra, 2019; Ghosh, 2020; Zhang & Bray,2020; Chaudhary et al., 2021, etc.). Punjabi (2020) uses 'private coaching' as an activity of intensively preparing students for national-level entrance exams by institutes. Whereas Education in India Report NSS 75th round (2014) uses the term 'private coaching' to augment knowledge and prepare for admission or job exams. Therefore, different meanings have been attached to the term 'coaching' in India.

Private 'tuition' is another term often used in the Indian context. Many Indian researchers have employed the term 'tuition' to describe the practice of after-school activities in academic subjects. Snehi (2010) has interchangeably used private tuition, private tutoring, private supplementary tutoring, and shadow education to denote the same phenomenon.

2.1.4 Other local terminologies

(A) Juku of Japan

Japanese shadow education institutions are known as 'juku'. These are seen as after-school tutoring establishments to which ambitious and nervous parents send their children hoping to get them ahead of their peers and also to keep up with university admissions (Rohlen, 1980, p.207).

Yamato & Zhang (2017) have argued that the blurred boundaries between juku and schooling have expanded juku functions beyond the limits of the three dimensions identified by Bray (1999). The current picture of shadow education is highly diversified in Japan with the recent curricular reforms and collaborations between tutoring providers and schools. Tutoring has now established a place within the official school hours, with less or no fee, and has extended its reach beyond academic subjects.

(B) Hagwon (Sa Gyo Yuk)

The South Korean Hagwon is similar to the 'juku' of Japan (Feng, 2020). Lee (2011, p.16) writes: "While school is a place to sleep, hagwon is a place to learn." Hagwons are school-like institutes where students go after school. Qualified and experienced instructors teach at Hagwon and students are free to choose which one they would like to attend. There are two other forms: individual tutoring for a student or a small group and self-study sheets that tutors occasionally supervise. Though there are differences among all three forms but, all are concerned with academic subjects.

(C) Crammers/Cram school

As understood by Yang & Shin (2008), in the context of Korea, crammers are those sites where private tutoring takes place. The main reason parents admit their children into these institutes is because of the dissatisfying conditions of public schools.

In Taiwan, crisscrossing between formal school and crammer school seems to be a daily routine (Wu, 2004, p.15). It is a usual everyday activity of most of the students. In the United Kingdom, the term crammer marks back over 100 years, when education was seen mainly as character building, and the exam was not the focus area of schools. Therefore, to succeed in the job-level exams such as civil services, students get admitted to crammers (Cife, 2021).

2.1.5 Operational Definition of Private Tutoring for the study

The present study uses the typology of private tutoring constructed and employed by Feng (2020, pg.41). The following dimensions are used to classify private tutoring:

7. Size: number of students, whether delivery of tutoring is on a one-to-one basis, in small groups, at large lecture-styled classes
8. Media: whether tutoring uses face-to-face tutorials, video recordings, live internet streaming, or other forms as the media of instruction.
9. Provision: the provider of tutoring- independent individuals (e.g., independent tutors, housewives, university students, retirees), private organizations, semi-public individuals (e.g., school teachers), or public organizations (e.g., schools, universities, social services, or communities).
10. Curriculum: whether tutoring is done in academic subjects or non-academic subjects (music, arts, etc.) and whether these subjects are part of the domestic or foreign curriculum. This can vary contextually.
11. Purpose: the reason to opt for tutoring (students or parents), whether tutoring is provided for remedial reasons or for achievements in examinations
12. Levels: whether they are provided to pre-primary, primary, secondary, or post-secondary levels of students.

The present research uses private supplementary tutoring, private tutoring, and shadow education interchangeably to describe the phenomenon of after-school lessons for within-school achievements. The research focuses on individual private tutorial centres (small-scale private organizations), i.e., the neighborhood tutorial centres concerned with providing tutoring in academic subjects, specifically, Mathematics and Sciences. Regarding the level of education, the study is limited to tutoring for secondary school students. As the study is situated in the time period of the Covid-19 pandemic, the role of technology and media is yet another critical dimension to be emphasized upon.

2.2 Functioning of Private Tutorial Centres

In the field of educational studies, different researchers (Scheerens, 1990; Birnbaum et al., 2003; Ventura et al., 2006; Ventura & Jang, 2009) have employed the term ‘functioning’ to understand the processes in an institutional/organizational space. These are the sets of actions/activities taking place inside an organization that are responsible for building its

foundation. The organization's expansion, growth, or downfall depends on these everyday activities and how efficiently they are performed.

Scheerens (1990, p.70) asserts that the functioning of educational systems depends on contextual characteristics such as environmental (macro) and technological changes/constraints. It also depends on the meso (organizational level) conditions responsible for facilitating the micro (unit level) conditions.

In their study, Birnbaum et al. (2003) developed a school functioning index that had focused on laying out key aspects like possessing adequate financial and physical resources, infrastructure, committed and skilled staff, strong administration, good communication with students and their families, and a conducive atmosphere, for effective functioning of the schools. The study further elaborates on human resources, i.e., members of a team/department that profoundly affect its functioning. Effective leadership is known to facilitate this process. And building strong departments (well-functioning teams) can support managing coordination. Hence improving the functioning of the entire organization. Using this rationale, the authors relate "strong departments" to "strong schools."

There have not been many studies focusing entirely on the 'functioning aspect' of the private tutorial centres. Many reasons are associated with this; first, as Bray (1999) elaborated, the industry operates in a largely unregulated market that keeps its data out of government records. Second, as private companies, they are reluctant to expose the details of their operations to outsiders, fearing that this can cause problems in the future (Feng, 2020, p.91). Third, because the shadow industry is so diversified, the findings from a particular setting cannot be generalized to another. It varies contextually and is dependent on many factors like environment, availability of resources, technological tools, capacities, knowledge, and skills of members, etc.,

However, we can still find some significant parts on the operational nature of the shadow industry in different context-specific works of international researchers. The present researcher has reviewed a good number of research articles to develop an understanding of the parameters associated with the functioning of the private tutorial centres. A framework was formed comprising the key components. These components were: the infrastructure of the centre (including the digital infrastructure), levels of management (administration and teaching), marketing techniques, scheduling, and pedagogy.

From a relevant review of literature, it was found that earlier, much of the shadow industry had functioned in an unorganized manner and on an informal basis. But, over the decades, the sector has increasingly become structured and commercialized. In the words of Gubernick and Burger, 1997 as cited in Aurini & Davies, 2004:

"Once a small and informal pushcart business, tutoring has become a burgeoning industry marked by franchising, marketing, and corporate strategies."

Aurini (2004, p.487) understands tutorial centres as compelling cases that showcase the "marriage between market and education." This highlights the presence of two interwoven threads, i.e., understanding of the market and knowledge of educational activities. Therefore, business acumen and tutoring skills are required to run a tutorial centre (Holloway et al.,2019, p.211).

Tutoring is evolving with time and is establishing new ways of operating. Aurini (2004, p.485) asserts that a more elaborate infrastructure is required to run the tutoring business smoothly. The centre, aiming for its longevity or expansion, should have different units performing a specific set of functions, like a marketing unit concerned with the advertising and promotional strategies for the recognition of the centre, a team of content creators required for designing resource material, subject experts for tutoring students, non-teaching support staff for administrative purposes this can include a leader/manager, receptionist, etc., Research (Feng, 2020, p.198) has shown that even small-scale individual tutorial centres have either the owner performing different roles or the employees multitasking. This emphasizes the fact that these activities are vital and cannot be overlooked.

Ventura & Jang (2009, p.64) promotes the idea of developing infrastructure, technologies, hardware, and software to increase the possibilities of effective functioning of the private tutorial centres. He elaborates on using digital tools like a virtual electronic board and chatting systems (text, audio, and video) as being efficient in pedagogical practices. Having an infrastructure that embraces technology can serve as a game-changer for many tutorial companies to meet the demands of the changing scenario (Zhang &Bray, 2020). It can facilitate its growth and expansion. However, the use of technology in private tutoring is not a new phenomenon. And, recently the covid-19 pandemic has forced even the small individual tutorial centres to employ technological tools for continuing their everyday functioning.

Working in an unregulated industry, the centres need to develop strategies that can help convince clients that their offered service is valuable. Promotional activities and advertising stand important in doing so. Social media presence and website content build trust by portraying authenticity and credibility (Holloway et al.,2019, p214). Most tutorial centres focus on creating their centre's online presence so that they can connect with people. Often tutorial centres increase anxieties about the exams but with advertisements that promise to help them pass exams with flying colors (Koh, 2014, p.816). This is one of the popular marketing techniques employed by the providers of shadow education to sustain their businesses.

Reviewing the findings of their recent study on tutorial centres, Johns & Mills (2021) conclude that leaders of tutorial centre should work towards building a digital infrastructure. They should provide tutors with technological tools and conduct tutor training specific to online tools and techniques. Besides this, they should improve their advertising strategies to facilitate the efficient functioning of the centre. The authors understand that tutoring centres underwent an organizational change that enabled the centre's functioning and survival in response to the crisis.

The present study uses the term 'functioning' to emphasize the aspect of 'working', 'operating,' or 'running' of the private tutorial centres during the covid-19 pandemic. The pandemic-led crisis dismantled the normal functioning in various sectors, and education was no exception. Significant shifts and changes were witnessed in the private tutoring industry. These changes not only vary geographically but also vary from one centre/organization to another in the same geographical area. This depends on several factors like environment, resource acquisition, skill-set, infrastructure, etc.

The researcher has emphasized on the 'functioning' aspect as it links to the shifts and changes within the private tutorial centres caused by the pandemic. These changes have a significant

role in the expansion of forms of private tutoring and the shadow educational industry as a whole.

2.3 Online Learning and Technology

Singh & Thurman (2019, p.294), from their systematic literature review and content analysis of definitions of online learning, found that from a total of forty-six articles, thirty-four mention the term 'technology,' making it the necessity to facilitate learning/education. It is the most abundant and clearly defined element of online learning. The other key element is 'time.' Both synchronous and asynchronous are used in definitions, but the asynchronous mode of instruction is usually seen as an additional opportunity provided by online learning. Interactivity is another crucial aspect that adds value to an online learning platform. They have constructed a broader definition of Online education:

"Online education is defined as education being delivered in an online environment through the use of the internet for teaching and learning. This includes online learning on the part of the students that is not dependent on their physical or virtual co-location. The teaching content is delivered online, and the instructors develop teaching modules that enhance learning and interactivity in the synchronous or asynchronous environment." (p.302)

This definition indicates the complexity of the phenomenon and the various parameters considered while understanding it.

Heng (2021) suggests that in the context of Industry 4.0, technology holds a significant role in socio-economic innovation and development. He further adds that the pandemic induced ICT adoption in the education system as the reliance on traditional face-to-face classes was unhelpful and inefficient. A paper by Save our Future (2020) takes a global perspective and highlights the efforts taken by various education stakeholders in adopting and adapting technology for continuing teaching-learning practices. Kang (2021) highlights the accelerating digital transformation in education due to the covid-19 pandemic.

In a recent study by Panda & Behera (2021), the proliferation of Ed-Tech platforms is seen as another form of the shadow education system, induced by the pandemic. Bray (2021, p. 4,6) highlights the significance of the internet in the shadow education industry by stating that in the changing times, much tutoring is delivered at a distance through the internet. These internet-based models allow providers to communicate with the students in multiple geographical places synchronously or asynchronously. In this way, the tutoring industry has outgrown the traditional model of mere mimicry and has developed its own mode of operation.

Technology serves as the basis of online learning, which can be found in the works of different scholars such as Moore et al. (2010), who define "online learning as access to learning experiences via the use of some technology." And Palanisamy & Sulaiman (2020) emphasized that some form of technology is being used in online learning to facilitate interactions and access materials. Technology acts as a binding factor.

Globally, online learning has become a significant and vital component of education (Singh & Thurman, 2019, p.290). And at the time of the pandemic-led crisis, online learning was the

widely used alternative and the most prominent one (Tilak, 2021, p. 494). The complete lockdown compelled educational institutes to realize the need for/and strengthen their technical infrastructure and services (Jena, 2020, cited in Suneja & Bagai, 2021, pg.1). Asilkan & Domnori (2020), in their recent work, prepared a guideline for shifting to an online learning space. This includes evaluating online meeting platforms, getting familiar with online teaching tools, working on an online teaching approach, and collecting students' feedback for continuous improvements.

In an online learning space, the identity of a traditional tutor changes to an e-tutor. This changes their role as well. It requires a paradigm shift in understanding space-time, virtual communication, and management techniques (O'Neil, 2006, as cited in Goold et al., 2010). Denis et al. (2004, p.4) assert that the e-tutor has more than one role to play. He must be a content facilitator, process facilitator, technologist, resource provider, assessor, researcher, designer, and many more. Barker (2002) emphasizes the need to adequately train e-tutors and equip them with appropriate skills that will enable them to perform within an online learning community. Exploratory research by Sembiring (2018) concluded that tutor learning strategy is the most influential factor to an effective online tutoring program, followed by the perception of technology and rationale for using the internet. This means that the strategies of a tutor, their way of managing activities, and engaging students in sessions stand most important for an effective online class. Therefore, proper training is required to develop the key competencies and skills. In conjunction with this was indicated by the findings presented by Gopal et al. (2021) that the instructor's quality is the most prominent factor that affects students' satisfaction during online classes. Therefore, an instructor needs to be efficient and enthusiastic during online classes.

Change is inevitable and educators have to decide whether they become part of the change or its victim (Lynch, 2002, p.2). Most importantly, developing a new vision of education stands as the first step towards the change process. Lynch (2002) articulates three foundational rules for web-based education: push beyond the comfort zone, plan extensively and throughout, and make the space interactive.

The most crucial determinant concerning online education is technology acceptance in teaching. Mitchell (2009), through an in-depth case study on an educational institute, concludes that professional development played a large part in altering facilitators' and administrators' opinions about online education. The conduction of a mandatory online training program gave firsthand experience in an online setting and addressed concerns related to an online teaching-learning environment.

For the present study, technology holds a significant position in deciding the course of functioning of the private tutorial centres. The extent and effectiveness of the use of technology by the private tutorial providers have resulted in shaping their experiences of working within an online environment.

In this study, online learning and online education are used interchangeably, meaning any kind of learning that takes place through the internet instead of a physical classroom. However, the study did not take into consideration the self-learning online courses. It specifically focuses on tutor-based online learning.

2.4 Organization and Change

The word ‘organization’ is derived from the Greek word 'Organon', meaning tool/instrument/organ. It refers to a collection of resources such as human resources, physical resources, financial resources, technological resources, intellectual resources, etc., working collectively in a formalized authority structure towards a common purpose/goal and connected to their larger environmental system. Collins (1998) portrays organizations as social phenomena. It is socially constructed and depends on the actions of individuals for its survival (Morgan, 1997). In a recent book, Valeri (2021) outlines basic elements of an organization: relationships among the members called “social structure,” “social milieu,” which is the technological and cultural context with which the organization interacts, and “technology,” which comprises skills, technical knowledge, and tools essential for producing output. All three together make a system that continuously interacts with one another, allowing change and transformation to occur. He further adds that each organization sets its foundational base in the two essential elements that guide its functioning first, the ‘differentiation’ that can be understood as a division of labor, wherein a set of roles are assigned to the members based on their specializations, with a motive to increase the effectiveness and efficiency of the body as a whole. The second is ‘Integration,' which aims to generate the need to distinguish the roles within the organization. The positions, powers, decision-making, and responsibilities are all designed structurally.

Another interesting argument is developed by Ahrne (1994). His work takes a social stance, focusing on humans and their interaction that gives life to an organization. He talks about four conditions/ nodal principles, i.e., affiliation, collective resources, substitutability of individuals, and recorded control that together constitutes common features of social entities. These social entities are known as organizations (p.2).

He views organizations as materialized institutions, having a location and an address. Individuals need to have some kind of recognition and identification to enter a specific organization; not everyone can step into the organizational setup. This makes an organization exclusive. As an affiliate of an organization, you have responsibilities, and other affiliates depend on you.

At the core of an organization lies a set of collective resources that are produced, maintained, and used by its affiliates (Ahrne, 1994, p.12). Resources can be the organization’s building, technology, funds, pieces of equipment, etc., which constitute the body of an organization, and rules constitute its memory. Both individual and collective motives and interests bind an organization. However, access to these resources can vary within an organization. This relates to the dimension of power-play. The organization’s goal is another aspect responsible for holding together individuals.

A significant characteristic of an organization is that no affiliate is indispensable. For its growth and survival, every affiliate eventually gets replaced. Division of labor is an integral part of an organization that is based on the skills and knowledge of the affiliates. Different positions constitute the structure. There is both division and unity within this structure.

Control is required to prevent affiliates from doing anything wrong. It facilitates the smooth functioning of an organization. It keeps the records of its affiliates throughout, keeps a track of their performances, and adds their achievements from time to time.

Understanding 'change'-

"There is nothing new about the change, it has been causing 'progress', disruption, fear, adaptation, and even enthusiasm since time immemorial"

~ Taylor & Singer (1983)

As per Merriam-Webster (1828), the term 'change' is defined as the act, process, or result of making or becoming different. It is a basic, notable, and recurring part of life (Khan S N. et al., 2022). In management studies, "change involves introducing some new form of operating or thinking" (Schalk et al. 1998 as cited in El-Taliawi, 2018).

Bicer (2021) states that any change in the environment surrounding the organization will naturally require change within the way of operation in the organization. This builds a relationship between an organization, its environment, and the change process.

Numerous forces put a lot of demands on organizations to adapt, change, and innovate such as deriving from external complex organizational environments (e.g., global economic crisis, new technology, etc.) to internal factors (like conflicts, lower performance, adapting new technology, etc.,) It is believed that the need to modify or to change is usually forced by an opportunity or a problem to solve (Bicer, 2021).

The covid-19 pandemic-led crisis is one such factor that demanded several small, medium, and large-scale organizations to undergo immediate change. And, the change occurred in different ways, sizes, and shapes. The urge to survive in a competitive world generated the need to initiate change processes. The role of the leaders and members stands important in bringing effective change in their organizations.

2.5 Leadership

Leadership plays an essential role in the functioning of any system. Researchers (e.g., Yukl 2008; Burke, 2012) assert that leaders make a difference in organizational processes and performance. Evidence (e.g., Bush, 2008) has shown that effective leadership is a vital component of successful organizations; it adds value to the organization. Bush (1998, 2003 & 2008) links leadership to values and purposes, whereas Cuban (1988) links leadership with change. Both of these perspectives highlight the importance of leadership for organizations in every sector and setting.

Filho et al. (2020) define leadership as an ability to innovate, think long-term, and manage complexity from a pre-defined set of options. He maintains that to manage and support challenges and demands, a leader needs to understand and be aware of the several externalities of their activities on the systems and environments in which they interact. Therefore, connectedness with interdisciplinarity and knowledge about settings and global challenges were essential issues related to the knowledge required for being a leader. The author

emphasizes the role of leadership in uncertainty by borrowing the language and concepts from Artigiani (2005) and Cicero (2010):

"Leadership, as an activity and a role, is especially vital whenever the state of a system or organization needs to be transformed, which always creates uncertainty."

As being highlighted by Moran and Brightman (2000, pp.66), managing change is about managing people. It has a human aspect to it, and the three most potent drivers of work behavior are purpose, identity, and mastery. Stobierski (2020) contends that for a successful transition, leaders have to look at the broader picture; they should understand the 'why' aspect of change and effectively communicate that to the members. They should be mindful enough to assign the roles and responsibilities to the members as per their capabilities. And should support and motivate the team throughout the process.

For the present research, the change observed is induced by the Covid-19 pandemic-led crisis. Therefore, understanding the know-how of leadership in tutorial centres during a 'crisis' is crucial in developing a holistic picture and answering the research questions.

Wooten and James (2008) have argued that much of the previous research understand crisis management in a narrower sense, such as its causes, consequences, cautionary measures for prevention, and coping mechanisms for a response. But, these lack an essential element which is leadership competencies. Therefore, the authors have added a comprehensive set of leadership competencies such as sense-making, creativity, clear communication, resilience, and reflection. They believe that it's crucial to emphasize on human resource development for organizations to effectively respond to crises. Dirani et al. (2020) assert that during a crisis, a leader who can share leadership set a purpose, emphasize with/and empower their employees' needs/abilities, effectively communicates, maintains organizational financial health, and organizational resilience can proliferate their organization. In this context, we now focus on the kinds of leadership essential for leading and managing change.

Sustainability leadership has been advocated in the recent work by Filho et al. (2020). The authors maintain that sustainability leaders can promote positive externalities in the market and inside companies. Their out-of-the-box thinking competencies can guide organizations to adapt, move towards a more sustainable state and overcome challenges. It is also suggested that the leader's set of values, skills, knowledge, and style, such as inclusive, visionary, creative, and altruistic, could contribute to sustainability leadership practices.

Valeri (2021) argues that in the contemporary world full of challenges and advancing technological capabilities, a transformational leadership style must lead a company successfully. Transformational leadership emphasizes on strengthening the capacities and abilities of the members of an organization. Bass and Riggio (2006) lays out four transformational leadership components crucial for achieving a high-performance level-

1. Idealize Influence (II): followers/members respect and trust the leader and want to reproduce the leader's high standards
2. Inspirational Motivation (IM): followers/members envision a compelling vision. Effective communication takes place
3. Intellectual Stimulation (IS): followers/members are encouraged to ask questions, be creative and work on different problems from varied lenses.

4. Individualized Consideration (IC): leaders foster the followers/members' growth by providing support and encouragement.

For the present study, 'leader' is one of the significant players. Usually, in individual tutorial centres, owners are the leaders performing various tasks of organizing, managing, and functioning. Therefore, to be able to understand the covid-19 induced changes taking place in the tutorial centre. It is important to consider the vision of its leaders.

Theoretical framework

A theoretical framework systematically presents the concepts and theories constructed -by different researchers in your interest area of research. This serves as a strong base for new upcoming research, as they are the basis of data analysis and interpretation of results. The works of the experts help develop a lens of the researcher, which is used to understand, examine, and analyze the data. In the words of Kivunja (2018), "A theoretical framework serves as a coat hanger for all your data analysis, interpretation of results and discussion of findings." This subpart provides the theoretical grounding for the present study.

This framework is guided by the understanding developed during the simultaneously occurring data collection and analysis process. The conduction of a pilot study enriched and facilitated the whole process. It enabled the researcher to look at the other essential dimensions and highlighted the interdisciplinary approach that can help present a holistic picture of the phenomenon under scrutiny.

The present research aims to study the impact of the covid-19 pandemic on the functioning of the private tutorial centres. What changes have been introduced in these centres for their survival and growth?

The review of the related literature highlighted that to understand the functioning of a private tutorial centre. It is important to consider major aspects of infrastructure, management, marketing strategies, scheduling, and pedagogical practices. Aurini (2004, p.487) understands tutorial centres (organizations) as compelling cases that showcase the "marriage between market and education." Sachs (2003, p.47) asserts that the organizations in the private tutoring industry serve both the purpose of providing educational services and pursuing financial benefits. This highlights the presence of two interwoven threads, i.e., understanding of the market and knowledge of educational activities. Therefore, business acumen and tutoring skills are required to run a tutorial centre (Holloway et al.,2019, p.211).

The present study recognizes tutorial centres as small-scale open-system organizations providing educational services for-profit motive. These tutorial centres are both influenced by and influence the external environment within which they function. This perception of the researcher is guided by the kind of data the study generated during its phases. The researcher has employed a social stance developed by Ahren (1994) that has helped the researcher to shape the understanding of the term 'organization.' Gupta (2021, p.14-15) concludes her recent study on a similar note as of the present researcher. She asserts that the private tutoring centres are those private organizations that organize themselves in close alignment with formal schooling norms and practices. They respond strategically and selectively to the market demands and the

society (environment). While doing so, they craft their own organizational framework. Similarly, Feng (2020) perceives tutorial centres as organizations of varying sizes.

To study the functioning of these tutorial centres and the changes induced due to the pandemic. The concepts of management, infrastructure, marketing, pedagogical practices, scheduling, and leadership stand essential. The present researcher has tried to produce a framework considering these key concepts specific to the context of private tutorial centres.

Lynch (2002, p.2) asserts that change is inevitable and educators have to decide whether they become part of the change or its victim. It is also important to develop a new vision to initiate the change. In doing so, the role of a leader is the most crucial. Stobierski (2020) contends that for a successful transition, leaders have to look at the broader picture; they should understand the 'why' aspect of change and effectively communicate that to the members. They should be mindful enough to assign the roles and responsibilities to the members as per their capabilities (management). And should support and motivate the team throughout the process.

The covid-19 pandemic emphasized the need to develop a digital infrastructure for its operation. The kind of infrastructure available impacts the pedagogical practices of a tutor. In a recent study, Johns and Mills (2021, p.105) concluded that tutors' pedagogical practices were starkly different depending on the available technology. With this, scheduling of the classes was also an aspect to be considered. The providers of private tutorials are aware of the operational nature of the industry. Therefore, tutorials are usually given beyond regular school hours (Feng, 2021). But, how has it changed during the pandemic when the two educational spaces, i.e., school, and tutorial centre, were restricted to one, i.e., home.

Marketing is another factor that has adopted new ways during the pandemic. Wilson and Holloway (2021) have found tutoring agencies have focused on building their social media presence. Therefore, this stands truly important while studying the functioning of these centres.

The present researcher has looked into these aspects to develop the study.

Chapter-3

Research Design and Methodology

The previous chapter elaborated on the core concepts in the context of private supplementary tutoring, online learning, and technology. The chapter drew interlinkages between relevant areas and presented an elaborated theoretical framework for the present study. In this chapter, the researcher focuses on the methodological considerations and the know-how for conducting the current research.

The present study entitled "Functioning of Private Tutorial Centres during Covid-19 Pandemic: Challenges and Prospects" has laid its emphasis on presenting a comprehensive picture of the operational aspect of traditional tutorial centres during the Covid-19 pandemic in the north-east district of Delhi. The study is qualitative in nature and has used an exploratory research design.

3.1 The rationale for qualitative research inquiry

The decision to employ a qualitative exploratory research design is based on the practical considerations relevant to private supplementary tutoring. Aspects like the nature of the research problem and the context of the study stand important. The context of the Covid-19 pandemic requires an in-depth inquiry that could be achieved by adopting a qualitative research design rather than any other form of research.

The philosophical assumptions in qualitative research stand distinct from the other forms of research. The ontological issue embraces the idea of multiple realities and challenges the notion of a single social reality. Therefore, the researcher constructs the knowledge based on the interpretations and experiences of a number of participants. As Creswell (2007) indicates:

"When studying individuals, qualitative researchers conduct a study with the intent of reporting multiple realities. Evidence of multiple realities includes the use of multiple quotes based on the actual words of different individuals and presenting different perspectives from individuals (p18)".

With the epistemological assumption, the researcher tries to get in closer proximity to the participants being studied. The field is the point of acquiring first-hand information and requires frequent visits and extended stays. Doing such can help the researcher to produce authentic and reliable data.

Qualitative researchers locate their findings in specific time periods and places (Bryman, 1988). The research is conducted in a specific place and the attention is on the events, processes, and behaviors in the immediate context and not in generalizing. It is more holistic and examines the entire social entity. The aim is to capture the meanings that research

participants attribute to their own particular situations (Fairbrother, 2014). It emphasizes the use of words instead of numbers.

In this study, the researcher is interested in knowing the experiences of the traditional private tutorial centres during the covid-19 pandemic, how the centres were functioning at that time, what changes they had to incorporate, and what challenges they have faced. The researcher further explores the dimension of learning and future prospects of these centres. Based on the participants' experiences and learnings, the study's overall purpose is to present a holistic picture of the phenomenon during the period of covid-19 crisis.

3.2 The Field

The present research focuses on the functional aspect of traditional tutorial centres or in the words of Feng (2020) the individual centres that solely operate on one site.

Gupta (2021, p.2) uses the phrase "Indian form of private tutoring" to emphasize the Indianness of the phenomenon which makes the practice unique in the specific context. Recent work by Chaudhary et al. (2021) outlines three major forms in which private supplementary tutoring is provided in India. First, these are the traditional/conventional form, in which university teachers/school teachers offer private tuition after official hours in their residential places or outside offices; second, the one-to-one tutoring chosen by the upper-middle-class/elites; third, the tutoring provided by educational institutions in a classroom setting. "Some individuals open small, local tutoring centres, and others prefer to open franchises of well-known tutoring businesses" (Ventura et al., 2006, p.10). The size can range from small-scale organizations/enterprises to big corporates.

This research focuses on the third major form of Private tutoring as classified in the above paragraph by Chaudhary et al. (2021), i.e., tutoring provided by educational institutions for a profit with a specific emphasis on small-scale organizations/enterprises located in the researcher's neighborhood (Yamuna Vihar).

Therefore, the research sites are the neighborhood 'tutorial centres'. The centre serves a larger purpose as it is the site where potential participants are located, and the operations are conducted. It is here that the infrastructure is assembled, lessons are delivered, interactions happen, and other resources like digital tools, books, etc., are made available to the concerned individuals.

According to the research objectives of this study, three types of participants (stakeholders) were required: the owner/leader of the centre, the tutor of the centre, and the student of the centre. To present comprehensive cases, the experiences of different stakeholders both at the receiving end and at the dispensing end are essential. This also enables data triangulation to develop a thorough understanding and make the study reliable.

3.2.1 Brief description of Research setting-

Yamuna Vihar is a residential colony located in North-east Delhi. It is among the well-planned areas of Delhi. The locality consists of independent builder floors, houses, and plots. The area is known for its fifteen-meter-long green belt and a good number of parks. Connectivity to

metro and other transport services is easily accessible. Primarily middle-class families reside in this area. The site has around one hundred and forty-two health centres like dispensaries and nursing homes nearby, including fifty-three hospitals.

More than thirty-five registered schools and twenty-eight playschools and day-cares are located here. Presently, around sixty-plus tutorial centres are functioning in the region, out of which thirty-two conduct Mathematics and Science classes for secondary school students.

3.2.2 Access to the field of inquiry

For qualitative research, access to the field of inquiry stands crucial. It is the first step towards collecting authentic, relevant, and sufficient data. Access challenges like considering the appropriateness of the research site, convincing potential participants for the study, building trust, and receiving responses from the field always stand in the way of a qualitative researcher (Creswell,2007, p.138). For the present research, gaining access was not a smooth process and had its own challenges. As the study is located in Yamuna Vihar (neighborhood of the researcher), the researcher's social relationship and professional identity paved the way for gaining trust and building rapport with the centre owner/leader. All three centres' owners/leaders lived in the same residential area. However, many of the tutorial centres denied access to the researcher. They chose not to be a part of the research for many reasons, such as the fear of exposing the centre's details of operation to an outsider, lack of interest, and time constraints. The three cases discussed in the study were the ones that showed interest, devoted their time, and provided access to their resources.

The current study looks into a specific type of tutorial centre i.e., a neighbourhood private tutorial centre (small scale) that functioned during the covid-19 pandemic. This is because India's shadow industry is diverse in its shape and size. Therefore, generalizations cannot be drawn as different contextual/situational factors affect the shadow industry of that specific geographical location in their ways. Keeping this in mind, the researcher limits the study to the neighbourhood. Within the neighbourhood area, the researcher had found a variety of cases. These cases stand unique in the ways of their functioning, ideology, strategies, and future plans. Though there are a few commonalities and overlappings, but the essence of this research lies in understanding their differences with respect to functioning.

3.2.3 Finalizing time and venue with the participants

The third wave of the Covid-19 pandemic in India posed a more significant challenge for the researcher. The omicron-driven third wave infected people faster, and the transmission rate was much higher than in the previous waves. This imposed another lockdown in the country. Due to this, the researcher was unable to visit the centres. The researcher had to rely on search engines such as Google to take out the contact details of the neighborhood centres. The first interaction was telephonic and was done with the aim of scheduling time for an in-person meeting. A total of twenty-eight centres were contacted based on the set parameters. Out of which five gave consent for the study. Two centers expressed time constraints at the time of follow-up, and three participated in the study.

Based on the researcher's familiarity with the working hours of the selected tutorial centres, site visits were preferably scheduled on a Saturday evening. The researcher had to re-confirm the availability of the participants before visiting the site. This made the process smooth. Although, one of the student interviews was telephonic. The duration of the interviews with the leaders/owners was about forty to fifty minutes. The interviews with tutors and students were comparatively shorter in time, ranging between twenty-five to thirty minutes. All the interviews were able to cover the key questions required for the research. Though, the researcher had to stay in touch with the participants and keep visiting the centres for seeking clarity over a few responses during the data transcription and data analysis process. This was a cyclic process.

The semi-structured interview was conducted on the centre's premises. Each centre had arranged an empty classroom/meeting room where noise could not be a barrier and privacy was secured. The researcher conducted different sets of interviews with the participants on decided dates and within the timeframe.

3.3 Sampling Strategies

Qualitative researches usually focus on studying small samples in-depth. The samples tend to be purposive and can evolve with the researcher's engagement with the field. Miles et al. (2014) mention two actions involved in qualitative sampling. First is setting the boundaries; by this, the researcher has to define the particular aspects of the case that needs to be studied within the specific time. The second is to create a conceptual framework that will help the researcher uncover, qualify or confirm the processes that support the study.

The research question guided the sampling decision of the present research. The researcher had been asking the question- "For that specific research question, how can I get an answer?" Doing so has facilitated the whole process of sampling and data collection.

Purposive sampling strategies were employed as the present exploratory research aims to gather a sample representing individuals who currently hold a position and perform roles in recent times in a tutoring centre. And to explore the diversity of this market. Another significant reason is geographic accessibility.

The sample was limited to only those centres (businesses) that impart for-profit instruction in academic subjects. Therefore, the tutorial centres were selected based on set parameters essential for the present research. These were-

A) Grade- Tutorial centres conducting classes for secondary school students

Research (Mary et al., 2014) has shown that the students experience high levels of anxiety, pressure, and stress during the board exams as they are known to be the so-called markers of getting a good life. The scores obtained in the secondary board exams decide the stream for senior secondary classes. And the scores obtained at the senior secondary level determine their admission to high-ranking universities or the universities of their choice. These tutorial centres feed upon the anxiety of the students and their parents. A lot of parents take up shadow education because other parents do and participate in the educational arms race. Earlier, tuitions were used for remedial purposes but they now serve competitive purposes (Christensen, 2021,

p.175). They promise to deliver excellent results through their result-oriented programs and attract mass.

During the Covid-19 pandemic, there was unsurety regarding the conduction of secondary level board exams. The Indian government made no official statement or circulated notification on the same for a long time. This is one of the reasons for the escalating anxiety of secondary school students and their families. And, therefore for a rising need to look for alternatives to teaching-learning practices.

B) Subjects- Tutorial centres imparting Mathematics and Science classes

Sujatha (2014) found that the demand for subjects such as Mathematics, Science, and English was much higher than for other subjects. Mathematics and Sciences are known to be the most popular subjects for tutoring during both board and non-board classes in India (Sujatha & Rani, 2011; Ghosh & Bray, 2018). These are the scoring subjects (Ghosh & Bray, 2018), have parental aspirations attached, and status symbol and prestige linked to them (Gupta, 2021). STEM fields are considered more secure, a vehicle for socio-economic mobility, and an investment towards a better future. Therefore, excelling in these subjects at the secondary and senior secondary educational levels stands essential (Gupta, 2021). By offering lessons, tutorial centres promise to lay the foundation for success in life and in school (Christensen, 2021).

Therefore, the present research has focused on the subjects of Mathematics and Sciences.

C) Popularity- Centres that cater to most of the students at Yamuna Vihar

The geographical location has played a significant role in deciding the selection of centres. As the research is limited to Yamuna Vihar, the centres of the specific area providing mathematics and sciences classes were contacted for the study. Another important dimension was the centre's popularity, i.e., the centres intaking the maximum number of secondary school students in the concerned area. Therefore, the researcher short-listed the centres and contacted those fulfilling the requirements.

D) Centre's interest in the present research

Any research demands time and effort both from the researcher and the participants. Therefore, educating the potential participants regarding the requirements of the study was the first step. Once the potential participants were informed about the nature of the study, they were in a better position to decide whether or not they would want to contribute. Consent was generated, and the three centres were chosen for the study.

Sampling was also done within each centre (case): leader, tutor, and student. The choice of participants was driven by conceptual questions which can add some depth to the research.

A total of three private tutorial centres were selected. Two tutors, one from centre-A and one from centre-B; three students, one from each centre, participated in the study.

Characteristics of participants:

The participants in this study were grouped under three types of stakeholders. The data obtained is heterogeneous in nature, i.e., the participants reflected varied characteristics. Heterogeneity ensures the presence of variability within the primary data.

1. Tutorial Centre owners/leaders-
   (a) Gender: The sample reflected male domination in the role of leader/owner. All three centres had a male in the leading position.
   (b) Education: The leaders of Centre-A and B were qualified teachers with a degree in education, whereas the leader of Centre-C had no teaching degree or certificate. All the leaders were subject experts with a higher education degree in mathematics or sciences.
   (c) Experience: All three leaders had worked in the tutoring industry for ten to twenty-five years. The leaders of Centre-A were school teachers and tutors before starting their own organization. The leaders of Centre-B and C had been working as tutors in their own centres for a good number of years.
   (d) Age: The sample of leaders included young composition of participants. The leaders fall between the age range of thirty-five to forty-five years.
   (e) Subjects delivered: All the leaders were engaged in providing mathematics and sciences lessons to the secondary and senior secondary school students.

2. Tutors-
   (a) Gender: Both the tutors interviewed were males.

   Centre-C had witnessed significant changes concerning the subjects offered during the covid-19 pandemic (elaborated in the findings chapter). Only Mathematics and English lessons were delivered at the time of the pandemic. The leader conducted mathematics classes, and the other female tutor provided English lessons. The centre had to drop science classes because of the unavailability of the respective tutor. As the study focused on specific subjects, i.e., mathematics and sciences, the researcher had no tutor to interview at the Centre-C.

   (b) Education: Both the tutors had received higher education degrees but lacked teaching degrees/certificates. The tutor of Centre-B had a degree in engineering, and the tutor of Centre-A is pursuing his master's degree.
   (c) Experience: Both the tutors had worked in the tutoring industry before. The tutor at Centre-A had five years of experience, and the tutor at Centre-B had twelve years of experience.
   (d) Age: Both the tutors are young, running in their late twenties.
   (e) Subject taught: The tutor of Centre-A is a mathematics expert and the tutor of Centre-B is a science expert.

3. Students-
   (a) Gender: The sample reflected a feminized gender ratio. Two out of three students were females.
   (b) Class: All the students were enrolled in Class-X during the data collection phase. They received tutorial lessons since they were in class-IX from the same centres.

3.4 Research Design

The research design acts as a framework for moving forward and developing essential tools and techniques. The research design of this study is somewhere between the two extreme ends of the continuum i.e., the highly inductive loosely design and a highly deductive tighter design (Miles et al., 2014).

3.4.1 Methodology

The methodology employed in this study consists of semi-structured interviews. Semi-structured interviews enable a researcher to deepen the discussion with the participants. A semi-structured interview is a verbal exchange where the interviewer tries to elicit information from the interviewee. Although a list of predetermined questions is prepared, these interviews unfold in a conversational manner to allow participants a chance to explore issues they feel are important (Longhurst, 2003). They possess a flexible approach.

A semi-structured interview was selected because the researcher was able to narrow down the areas of inquiry that was needed to be asked from the stakeholders of the centres. The purpose was to collect the voices of participants involved in the decision-making and operation of tutoring centres. Therefore, the experiences/stories on these specific topics were required. Semi-structured interviews offer flexibility to the participants and the researcher to engage more in the areas that are developed during the course of the interview.

Crafting the interview protocol was a laborious process. Many resources were referred as to how to conduct the interview, how to introduce yourself and your research, and what kind of questions to ask. Rabionet (2011) labels this as the third stage in designing and conducting semi-structured interviews. This stage has two important components: (a) How does the interviewer introduce themselves, and (b) What are the questions asked. The interviewer's introduction stands essential in building a rapport and gaining the participant’s trust. To assure the quality of the research, the kind of questions asked is critical. This research has three sets of semi-structured interview schedules for three different stakeholders, namely the leader/owner, tutor, and student of the centre. Existing literature and research work in similar areas were the best resources to formulate questions.

The first semi-structured interview for the leader/owner has been borrowed from the work by Johns & Mills (2021). The researchers have focused on studying the online mathematics tutoring practices during the Covid-19 pandemic in the context of the U.S.A. Their work has taken into consideration the responses of twenty-eight learning centre leaders using a survey method. The present researcher has modified the questions as per the need of the present study.

The researcher developed two different interview schedules for the tutor and student. Existing literature and similar works guided the process.

After conducting the interviews, the researcher manually transcribed the recorded audios. Managing and organizing the data essential for the study was an arduous process. This was not a one-time task; the researcher had to revisit the data chunks repeatedly to generate meanings.

A pilot study was conducted after developing a semi-structured interview schedule. Primarily, it was done to test the semi-structured interview schedule prepared for the leaders(owner). Are the questions easily comprehended and understood by the participants? Whether or not the participants perceive the questions as being respectful and culturally sensitive? Do the questions produce relevant and meaningful responses? Can believable explanations be made?

The conduction of the pilot study enabled early analysis and the production of an interim report crucial to evaluate the direction of research.

3.4.2 Data Collection-

The research questions of the study guided the process of data collection. These questions enabled the researcher to design a more focused data collection process like the decisions regarding sampling and the instrumentation choice.

The primary method used for data collection was to conduct semi-structured interviews with the participants. As described in the sub-part above. The researcher had to design different semi-structured interview schedules for different stakeholders.

All three centres were contacted simultaneously, but as per the availability of participants, time was allocated. The first visit to the centres was devoted to building rapport and explaining the objectives of the present study. The researcher collected consent and fixed the time for the interview. It was important for the researcher to stay in touch with the leaders for follow-up and to decide the future course of action.

The first round of data collection was done by conducting semi-structured interviews with the leaders of the centres. This was done face-to-face in the tutorial centres, and the researcher tried to spend more time before and after each interview. This enabled the researcher to make observations before, during, and after the interviews. These were not structured observations but rather more naturalistic in approach.

The second round focused on gathering data from the tutors of these centres, a different semi-structured interview schedule was prepared for this purpose. And in-person interviews took place in the tutorial centres.

The third round focused on collecting students' voices taking classes from these centres. One out of three student interviews was conducted over the phone, and the other two were completed in the tutorial centre before/after their classes. Students were chosen randomly based on their willingness to participate in the study. Along with the tutor, the researcher introduced the present research in front of the whole batch. The interested students were asked a follow-up question: 'Have they also attended tutorial classes from the same centre pre-covid and during the covid-19 lockdown.' This enabled the researcher to decide which student to interview. This technique was adopted for centres B and C. These centres were taking offline classes during the researcher's data collection phase. Centre-A was only providing online classes; therefore, the researcher had to contact the students whose details had been shared by the centre. The researcher used the same parameter (as described above) to select the student for the interview.

All the interviews were recorded by audio. Besides, field notes were also made by the researcher to pen down the data and researcher's own thoughts. The recordings from the interviews were transcribed, and those transcriptions were re-read to generate initial codes and themes. The researcher then used these themes for analyzing and presenting the data.

Apart from this, pictures of the centres were taken to display the infrastructure (set-up for the online learning environment). Tutorial centres have employed technology differently based on their vision, goal, and familiarity with technology. Therefore, the infrastructural change is one crucial area to be observed.

The extended stay in the tutorial centres allowed observations to be made before, during, and after the interviews. The observations in this study took a naturalistic approach rather than structured ones.

Sources of data were not limited to participants' reflections of their experiences during the covid-19 pandemic and on the observations of the centres. But, various other authentic documents like recent news articles (media coverage), research papers, Indian government statistical releases, Indian educational policies, and regulations paved the way for the researcher to holistically and critically understand the phenomenon.

3.5 Data analysis-

The analysis for the present study began during the data collection process. Researchers indulged in qualitative studies have suggested using a simultaneous style of data collection and analysis (Creswell, 2007; Miles et. al 2014). Doing so provided the present researcher constructive feedback from the participants' reflections to modify/edit/omit the interview questions to best suit the broader research objective. This also opened up the possibility of collecting new data to fill the observed gaps, clarify concepts, test hypotheses, and present the case holistically. The idea of collecting photographs of the centres is the result of this simultaneous analysis approach. This added another dimension to the in-depth analysis.

Data analysis was a continuous process, which involved working back and forth across steps. The data obtained from the semi-structured interviews was recorded in the form of audio. The audio recordings from the interviews with the participants were usually transcribed on the same day or within two days of the conduction of the interview. This helped the researcher take down important aspects and observations that may have been lost if the transcription process had been delayed. It also enabled the researcher to understand the research field in a better way. Additionally, field notes (raw data) were also processed and transformed into formal write-ups for healthier analysis.

The data was transformed from audio to written text, specifically in the form of words. These transcriptions were thoroughly read several times, and initial (open) codes were generated. This was the first cycle of coding. These codes acted as labels that assigned symbolic meaning to the text (Miles et al., 2014). These codes can be single words, paragraphs, or entire pages. They detect the recurring pattern and represent the essence. A total of seventy-three codes were generated during this round. A mixture of various types of codes like descriptive, in-vivo, holistic, process, etc., were produced. These codes facilitated the process of categorizing

similar or different data chunks concerning different research questions of the study. This process was guided both deductively and inductively to bring out the most essential data. The most meaningful material is put together to further process the bulk into analyzable units (Miles et al., 2014). In Butler-Kisber's (2018) words, this is known as the coarse-grained phase, and following this is the fine-grained phase.

The review process co-occurred to understand the data meticulously. The second cycle of the coding process was pattern coding. This was done to further condense and assemble data to produce emergent themes. The researcher had to go through several re-reading and color-coding rounds to develop thematic codes from the open codes. Thematic codes were then used for formulating broader themes. Text segments extracted from the interview transcripts were classified under the more general themes. In the end, six broader themes were generated from the data. Analytic memos were developed to tie together pieces of data and add meaning. They are referred to as sense-making tools in qualitative research.

The whole process was conducted manually by the researcher. This was tedious work to do because the entire process demanded re-visiting, revising, and re-labeling. In the words of Miles et al. (2014, p.93), coding is not just a process to condense larger chunks of data into smaller meaningful ones but also a form of early and continuing analysis.

Three distinctive cases were presented using the matrice display format in the word document. A matrix is a tabular form of arranging the data for the ease of the researcher. This permits detailed analysis and further help in cross-case comparisons. For the present study, themes derived from the data and research questions guided the meaningful data to be presented in a matrix. It was laid out using rows and columns were generated. Direct quotes, keywords, summary judgments, ranting, etc., were displayed. A content-analytic summary table was prepared to display pertinent data from the three cases of the present study.

The research had focused on the dimension of change due to the covid-19 pandemic. Therefore, an effect and a case dynamic matrix was produced to guide the process of analysis writing. The effect matrix focused on what eventually happened in the three cases (centres). The case dynamic matrix charted the forces for change and traced the consequential processes and outcomes (Miles et al., 2014). Doing so enabled the researcher to develop an organized form of findings. This was a cyclic process, and continuous editions, modifications, and omissions were done whenever required. These findings were then linked with explanations, and the researcher tried to understand the questions of- How the centre responded to the covid-19 pandemic, Why the change happened, What changed (by looking at the change across time), Has the change made the functioning better or worse and How people experienced the change.

Displaying the data in various forms during each phase helped the researcher record the data and facilitated the process of analyzing and writing. A constant comparative inquiry, a thematic form of qualitative work, was employed to present the three cases (centres). It enabled the researcher to produce a conceptual understanding of the individual experiences and activities around the phenomenon under study.

3.6 Ethical considerations –

An ethical agreement was shared between the researcher and the participants. The decision to participate was made voluntary. The participants were informed about the critical elements of the present research during the first interaction. The worthiness and the need of the research was communicated so that the participants understand the essential role they have to play once the study begins.

Participants were also informed about the time, resources, and efforts the study demanded from the researcher and from them. The questions like- What kind of data will be required? And how that data would be collected was conveyed beforehand. The researcher actively involved participants in designing the timeline for data collection. More than the researcher, the participants scheduled time for data collection. This was based on their availability, and the researcher put no pressure.

The researcher promised anonymity and providing privacy to the participants. This was maintained by using pseudo names of the centres and participating individuals in the research writing.

Any kind of issue or concern from the participant's side regarding any aspect of the research was addressed carefully, and only then the study was made to move ahead. Informed consent was generated for the study by keeping things open and developing trust.

The researcher was mindful of biases that can exist during qualitative research. These biases can invalidate or weaken the findings (Miles et al., 2014). Therefore, any kind of bias: personal, elite, etc., was kept out during the different phases of the research. Trustworthiness was maintained throughout.

Data triangulation is another way of enhancing the trustworthiness and reliability of data and findings. This can produce complimenting or inconsistent results; both add value to the research. Triangulation is ideal and demands time. For the present study, triangulation by data source (persons) was done to closely examine the integrity of the data collected. Leaders, tutors, and students were the three different sources whom the researcher interviewed to present a more holistic picture.

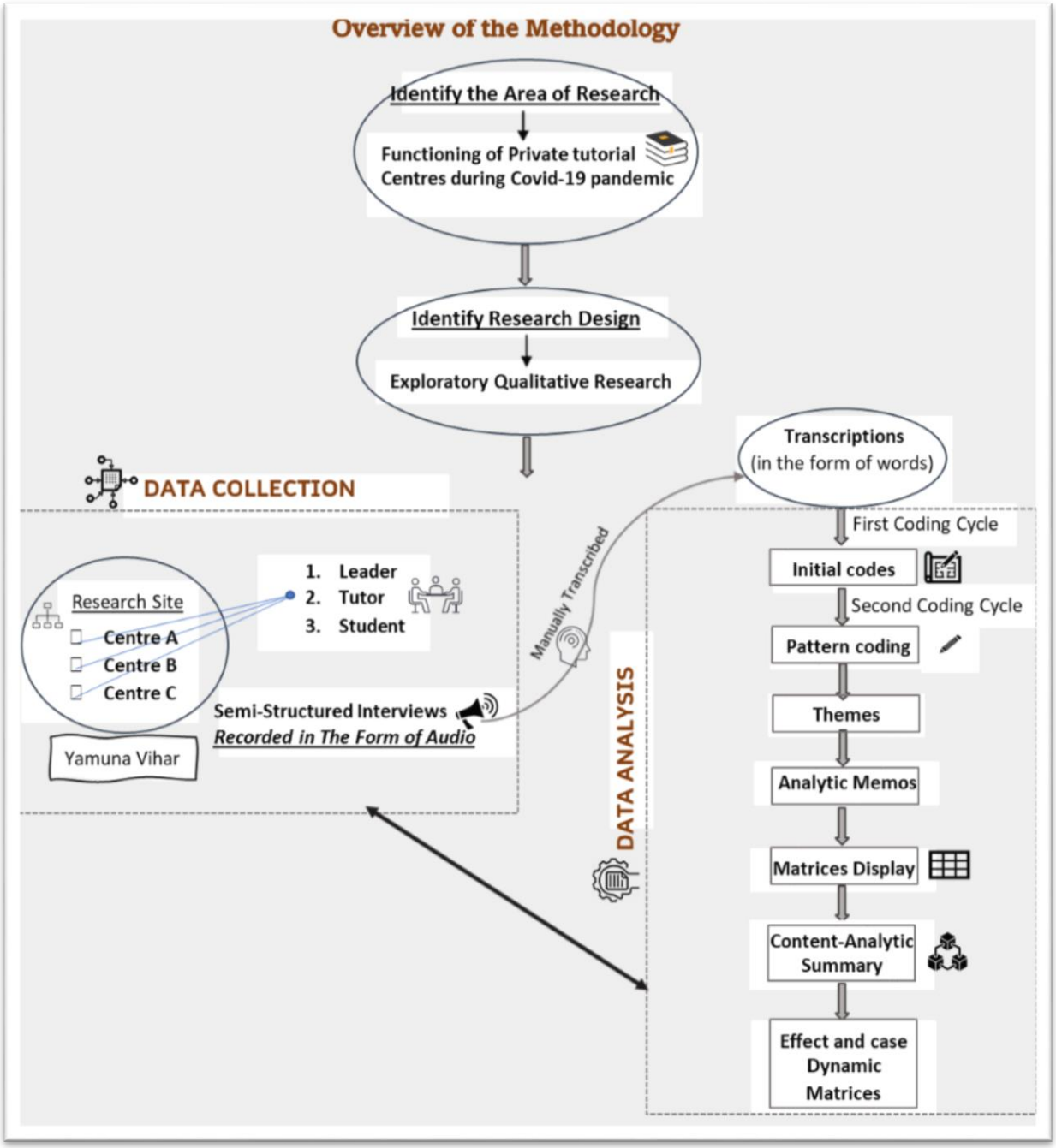

Figure: 3.1 Overview of the Methodology

Chapter-4

Analysis and Findings

A Holistic Picture

The previous chapter laid out emphasis on the research methodology adopted for the study. Keeping in mind the present study's objectives, it emphasized on the need to employ a qualitative research design. The chapter also elaborated on the rationale behind the chosen methodology. For this chapter, the purpose is to present a holistic picture of the experiences of the private tutorial centres during the covid-19 pandemic in a particular geographic location. The present research's focus is on the changes induced by the pandemic in the functioning of these centres. It further examines the various factors that play a crucial role in shaping those experiences and attempts to suggest certain practices essential for the growth and survival of these centres.

Data analysis, in simpler terms, means studying the material derived from the field to determine the underlying meanings. It is a creative process and depends on the insights and conceptual abilities of the researcher. The data has no meaning without its proper analysis. The process begins with pattern recognition and description, followed by plausible explanations. A larger data chunk is reduced into a smaller, workable data size which is significant for the study. It can occur both inductively and logically (Patton, 1999).

In this chapter, the data obtained from the semi-structured interviews of the key stakeholders is analyzed to understand the varying conditions of the private tutorial centres during the pandemic. The first section of this chapter will set the background by discussing the changing scenario of education due to the covid-19 pandemic. It will shed light on the under-researched area of non-formal education, specifically private supplementary tutoring. The second section will discuss how the pandemic-led crisis has influenced the functioning of the selected three private tutorial centres.

4.1 The Sudden disruption

The start of the year 2020 blighted the education system globally. The government worldwide was caught off guard by the sudden coronavirus outbreak. The situation evoked a state of unpredictability and caused severe distress among the masses.

Kobakhidze and Eradze (2022) state that the impact of the covid-19 pandemic on the worldwide educational system has been referred to as a “crisis,” an emergency. This sudden disruption dismantled the functioning of educational institutions all over the world. Alternatives to continue teaching-learning practices were developed, and a distant approach for conducting lessons was employed. Technology has played a crucial role in this changing scenario. Tilak (2021), in his recent article, asserts that the use of radio and television was seen as prevalent in African countries; however, online learning and broadcasting lessons through television were extensively used in Asian countries. India employed the old traditional media of distance education, but the online method of teaching and learning was dominant. Undoubtedly, technology enabled institutions to build some kind of connection with the

learners in the absence of physical space. Though, not every learner can afford the requirements of a distant educational setting, which is a significant challenge in a technology-driven system.

The impact of the pandemic on the formal education system has gained much attention in academic research writing. In contrast, the non-formal education sector has received scant emphasis, specifically the shadow education industry. Since the first wave of coronavirus, a good number of newspaper articles have been able to encapsulate the conditions of formal schooling systems. With this, regular attempts were made to put forward the conditions of tutorial centres as well. There have been mixed responses from different tutorial providers globally, highlighting numerous factors responsible for shaping the same. These factors can be the socio-economic conditions of the tutoring providers and the learners' families, the infrastructure, technological support, the tutor's capability, government policies, etc. All these factors intermingle and paint the picture, which varies contextually.

4.2 The Overall Scenario

The pandemic-led crisis dismantled the so-called 'normal' everyday operations of the formal and non-formal education system. As highlighted in the previous section, the research in the area of private supplementary tutoring stands negligible during the covid-19 pandemic. However, both international and national newspaper articles and online news platforms have tried to cover the challenges faced by tutorial providers in different contexts.

The coronavirus pandemic is referred to as a 'watershed' event for online tutoring and shadow education as a whole (Sherman, 2020; Bray, 2021). This section will outline the changing scenario of the private supplementary tutoring phenomenon amidst the pandemic. Cases from different contexts will help shape the discourse.

Zhang and Bray (2020) assert that shadow education has embraced technology much more rapidly than schooling and at a much larger scale. The primary reason is that these are private agencies whose survival depends on their everyday functioning. Therefore, they have to quickly adapt to the current market demands and provide satisfactory products to stay in business. Another reason is that the sector is less regulated than formal schooling, which allows them to expand their services (Silova, 2010; Bray, 2021; 2022). It has always been a critical discussion pointer that the shadow education industry has diversified and has been evolving and changing its form. But it was during the pandemic that these diversified forms gained momentum. The sector has outgrown the traditional operating models and has adopted technology for various purposes. With the covid-19 pandemic, online tutoring was significantly boosted when schools were seen as inefficient for continuing educational activities.

Different perspectives were brought out in public concerning the dispensing end of private tutoring. The tutors were keen on online tutoring because it meant they could reach a larger market of families (Wilson & Holloway, 2021). A larger market meant growth and profits for the private agencies. Many tuition centre owners in Singapore believe that 'online classes' are the future; it lowers your bills and opens up enormous opportunities (see, e.g., Yi, 2020). In China, during the crisis, some of the tutoring was offered free of charge as a marketing strategy. And low-cost mass online tutoring was done to compete for customers and new markets (Zhang & Bray,2020). In the United Kingdom, Wilson & Holloway (2021) found that during the initial phase of covid-19, when the demand for tuition reduced, tutoring agencies majorly focused on

two strategies to attract new clients and retain existing ones by (1) increasing marketing using social media posts, online advertisements, establishing web pages, asking existing clients to recommend them, and (2) by reducing the price.

Zhang and Bray (2020) elaborate on the case of China, where online tutoring facilitated by venture investments and technological advances became a significant activity. The years of experience paved the way for the major online tutoring providers during the Covid-19 crisis. They now have rich experience in teaching, service, and management, have a good number of e-resources, built infrastructures such as virtual laboratories, classrooms, and assessment tools, and have efficient teams for online tutoring. The proliferation of Ed-Tech platforms is seen as another form of the shadow education system induced by the pandemic (Panda & Behera, 2021). The Edtech startups like upGrad, BYJUs, and Vedantu bloomed during the pandemic and entered the Indian unicorn club in 2021 (Startup Talky, 2022).

The mixed experiences from the Indian tutorial providers emphasize its highly diversified market, ranging from small individual centres to large multinational companies. The newspaper articles have played a significant role in collecting those experiences from the different corners of the country. Saraswathy (2021) writes about how small coaching players have gone out of business and shut down due to insufficient infrastructure and funds. Jha (2021) found that nearly four hundred small tutorial centres were closed after the covid-19 pandemic in GB Nagar. It was challenging for the providers to manage the expenses of the centre and the repeated lockdowns killed their hopes of a revival. Choubey (2021) reports on the case of mid-level coaching centre operators of Jharkhand, who planned to file a PIL at the High Court seeking direction to the government for fixing a provision of minimum wages for them and to demand concessions like rent waiver, electricity exemption for their institutes. Private tutorial providers from Srinagar made a similar appeal and requested the government to support these centres financially (Parray, 2021).

Krishnamoorthy (2020) encapsulates the rising tensions among tutorial providers due to lockdown. Though, some have leveraged technology, such as utilizing software to deliver video lessons to keep the students engaged. Nagari (2020) promotes the practice of online coaching, he wrote: *"some experts said that the future of learning is online and if coaching institutes want to survive, they must take that into consideration".* Chopra (2020) reports that the centres have tried to re-invent themselves to survive in covid times. The students have been enrolled in online courses on the promise that this will be converted into physical soon. Chandra (2020) highlights the case of Kota, how the pandemic has influenced the choice of students to join classes provided by well-established EdTech such as Unacademy other than coming to Kota. Though, a shift to online classes has offered hope to these centres.

The following sub-sections explore the functioning of the three individual tutorial centres during the covid-19 pandemic located in the same neighborhood.

4.3 The Three Tutorial Centres

The present study draws primarily on the data derived by interviewing the key stakeholders of the selected private tutorial centres. These tutorial centres are situated in the same geographical location i.e., Yamuna Vihar, an affluent residential neighborhood in northeast Delhi. The researcher understands the multifaceted nature of private supplementary tutoring and therefore limits the research field to the neighborhood area.

The study is placed in the timeframe of the Covid-19 pandemic, which makes the contextual dimension more significant than ever. There cannot be a single narrative to describe the impact of the pandemic on private tutoring (Wilson & Holloway, 2021). Therefore, an in-depth and critical examination of different contexts is required. For the present study, the researcher has focused on her neighborhood. Given the government's guidelines, pandemic restrictions, and for the ease of data collection, the neighborhood was chosen as a feasible research site.

The three tutorial centres have been selected based on the set parameters essential for the present study. These were: Popularity of the centre, conduction of classes for specific grades (IX and X) in the concerned subjects (Mathematics and Sciences), and finally, the centre's interest in the study (consent). The methodology chapter elaborates on each parameter.

The data guided the researcher to view these tutorial centres as small-scale organizations that deliver private lessons to secondary school students for profit. The researcher acknowledges these organizations as an open system. The open-system approach focuses on the interdependent relationship between an organization and its external environment. This relationship facilitates the continuous feedback process that is responsible for shaping the organization's way of operation. This also helps an organization to improve and modify its services according to the needs of the changing environment. With this, it places greater emphasis on the role of effective communication in the whole process.

The findings and analysis sub-section attempt to present the selected three centres as individual cases. At first, a general description (profile) of the centre's location, years of service, tutor's experience, etc., is laid out. Next is the detailed functioning of the three centres in the pre-covid scenario, followed by the functioning during the covid-19 pandemic. The first sub-section has talked about the functioning of the centres before the pandemic-led crisis. It has focused on the management of everyday operations and routine tasks. This research focuses highly on the 'during the covid-19 pandemic' phase. Therefore, the second sub-section presents a detailed thematic analysis of the concerned areas like the leadership, infrastructural changes, challenges, etc.

4.3.1 Case I: Tutorial Centre A

The Tutorial Centre 'A' is located at the service lane of B-block, Yamuna Vihar. Many other private tutoring institutes surround centre-A. These institutes focus on delivering lessons and preparing students (i) for qualifying and competitive exams (to get government jobs in various departments), (ii) entrance tests for JEE and NEET (for getting into prestigious colleges like IITs, NITs), and (iii) enhancing communication skills. The presence of a good number of coaching institutes makes the particular area one of the busiest sites of Yamuna Vihar. Students

from the same and surrounding neighboring areas travel and attend the classes provided by these institutes.

Centre-A has offered face-to-face group lessons to secondary and senior secondary school students for the past ten years. It is a well-known institute that has successfully delivered first-class board results every year. The result-oriented approach of the centre makes it popular among the school students and their parents. A significant number of students from the neighborhood attend this particular tutorial centre compared to other centres.

The centre specializes in providing students with tutorials for Mathematics and Sciences. For the students aspiring to enter the STEM (Science, Technology, Engineering, and Mathematics) fields, the results of these two educational levels, i.e., secondary and senior secondary, stand essential (Gupta, 2021). These subjects are considered scoring, have high prestige, and the subjects known to pave the way towards a brighter future. Therefore, tutoring in these subjects is deemed vital and unavoidable (Ghosh & Bray, 2018; Gupta, 2021). Their demand from the receiving end is high. This is a significant reason why most tutorial centres focus much more on STEM subjects.

The small-scale organization was registered in the year 2018. It is headed by two individuals who were professional teachers in their early and late twenties. Before starting their own tutorial centre, they had served as guest teachers in many public and private schools in northeast Delhi. Simultaneously, they were also delivering private tuitions for different coaching institutes. Aurini (2003, p.14) relates this to the "internal splintering of the teaching profession," where-in former teachers orient themselves towards markets and sell their services for profit. Both of the owners possess good experience in the field of shadow education and also have subject expertise. Prior connections, an influential image in the market, and creative advertising served as a strong base for setting up their tutorial centre.

(A) Findings based on semi-structured interviews with leaders (Owners) of the centre.

Pre-covid scenario

The Functioning of Centre-A

1. Infrastructure

The centre has been functioning in physical mode since its inception in 2010. Students attended the classes in the centre's building in the presence of their peers and tutors. The centre was functioning from a two-story rented building. There were eight functional rooms equipped with air conditioners. Out of which, five were designed to conduct physical classes/sessions. These spacious classrooms were adequately designed with appropriate lighting and seating arrangement. Twenty to twenty-five desks were arranged in rows inside each classroom. A teaching tool like a whiteboard/blackboard was set at the front for the tutor. The other two rooms were designed as multipurpose spaces with desktops for team members to create content, deal with customers, and maintain resources. The leaders had a separate room equipped with an LCD television to keep an eye on CCTV footage of all the rooms at the centre. The centre also had a reception. The lobby was used for this purpose.

Other resources like reference books, help books, educational magazines, chalks, markers, and stationery items were also available at the centre's building for students and staff members.

Basic sanitation facilities like drinking water and clean toilets were also maintained by the centre.

Digital infrastructure: There were no technological devices used by the tutor to impart lessons. Though, the centre had its website and application (APP) available for android users. The application was designed to support physical classes. It was used for communicating the relevant information like the weekly time schedules, syllabus, test dates, results, etc. to the students.

2. Management

The centre worked in a particular order. The hierarchy of positions and roles was maintained. The members (employees) were recruited as per their knowledge, skill-set, and expertise. And were assigned defined roles and functions to perform. They had full-time and part-time employees.

Centre 'A' had a proper structure; different units were placed for its functioning. These units can be classified into:

a) Leaders- Managing the functioning of the sub-units of the centre, motivating staff, and planning for the future.
b) Team of tutors- They are subject experts whose primary task is to deliver lessons. They were also required to deal with students and their parents
c) Content creators- engaged in developing material for the centre (assignments, worksheets, tests, evaluation tools, application updates, etc.)
d) Marketing team- engaged in designing flyers and brochures, billboards and planning other advertising activities
e) Support staff- cleaners, receptionists, security guards, and record-keeping team

All the members were well-versed with the kind of roles they had to perform from time to time. The centre also practiced continuous and effective communication. This established the smooth functioning of the centre-A.

3. Marketing

The choice of the centre's location was an added advantage. Being located in a commercial space played a significant role in its high demand.

It has catchy billboards and posters placed on its building. These billboards are not limited to the centre's building but can also be found in other localities surrounding Yamuna Vihar. They also circulate handouts, flyers, and glossy brochures door to door.

The centre prints its own study material (with centre's trademark) and circulates it among students. The quality of this material holds foremost importance in the market.

Another interesting marketing strategy employed by centre-A is by organizing school campaigns, conducting scholarship tests, and providing free demo classes to potential customers.

The centre also has an active website which is updated timely with current study packages and features.

Such advertising techniques directly influence the popularity of the tutorial centre-A positively.

4. Scheduling of classes

The students were divided into batches, and they chose these batches according to their availability and comfort. Going to school in the morning was the primary activity for most students. Hence, these classes were usually conducted during the afternoon or evening when students returned home. However, lessons were also scheduled in the morning at the weekends or during the school holidays. The timings of formal schooling decided the timings of shadow education engagements. These were the after-school activities meant for students' within-school achievements and increased educational opportunities (Bray,1999).

Hours of teaching: Seven to eight batches, with a batch size of forty to forty-five students per batch, were formed for secondary school students. Regular classes were scheduled from Monday to Saturday. Science classes took place on Monday, Wednesday, and Friday (MWF). Whereas, Mathematics classes were scheduled for Tuesday, Thursday, and Saturday (TTS). All the classes had fixed timings, usually an hour. And Sundays were assigned for extra classes or tests, depending on the course completion and upcoming exams.

5. Pedagogy and Assessments

The lecture, interactive lecture, and direct instruction (Nelson, 2016) method dominated the transactional practices. Activities like a demonstration, presentation, problem-solving, concept mapping, etc., were employed as teaching techniques. Most tutors delivered lessons using the traditional approach of using markers/chalks and whiteboards/blackboards. Apart from this, resource books were referred by the tutors during the classes to clarify concepts, discuss ample examples, and list unique questions. At the end of every session, ten minutes were devoted to constructive discussions and answering students' questions.

The content of these classes was designed in such a way that it matches the syllabus of mainstream schooling. The team prepared proper time schedules to complement the topics covered in schools. Timely assessments were conducted to test the knowledge intake of students. These assessments were both objective and subjective in nature and were conducted as per the requirement and pattern of Class-X C.B.S.E board exams. The content team developed the assignments and assessment sheets. These assessments were evaluated by the tutors, and timely feedback was provided to the students. Revisions, extra classes, and tests were planned for the Board exam month. The centre acted as the shadow of the formal school system, and it was dependent on mainstream schooling for its functioning.

4.3.2 Case II: Tutorial Centre B

The Tutorial Centre 'B' is located in B-block, Yamuna Vihar. This centre is near the leading supermarket and is surrounded by daily needs shops like pharmacies, dry-cleaners, and grocery stores. This keeps the particular area busy.

The centre is quite famous in the area and has been in business for more than twenty-five years. It started with a single tutor engaged in delivering both individual and group lessons. At that time, the centre focused on providing only Mathematics lessons for secondary and senior secondary school students. After three years, the centre expanded by employing other tutors for sciences. From one to a team of six tutors, the centre has progressed over the years. The centre is registered for taxation, though the trademark is not registered.

The owner, who is the leader and principal tutor of the centre, is well known for his remarkable tutoring skills. He had been tutoring since the age of eighteen. He has earned a master's degree in Mathematics and a bachelor's degree in Education (distance-mode). His qualifications and astonishing yearly results make him an ideal tutor in the eyes of potential customers.

The core subjects of the centre are Mathematics and Sciences. Though they also provide lessons in Social sciences to secondary school students. They have designed different study packages that allow students the choice of subjects and duration. For example, students can opt for all three subjects on a yearly/quarterly/monthly basis or go for a single/two subject(s) for the duration they want. These customized study packages offer some discounts to the students and, therefore, are preferred by many.

Pre-covid scenario

The functioning of Centre-B

1. Infrastructure

The centre has been functioning in physical mode since its inception in 1996. The centre operates from the ground floor of a multi-story building owned by the head tutor. It has five functional rooms, out of which three are designed to conduct physical classes, one is the reception, and the other one is the resource room.

The classrooms are airy and spacious. They have traditional seating arrangements with large connected tables and desks. Other resources like stationery material, reference books, guide books, and printed resource material are placed on different shelves for the students. The centre is centrally air-conditioned. Basic sanitation facilities like drinking water and clean toilets were also maintained by the centre.

Digital infrastructure: Out of three classrooms, two have whiteboards, and one has a digital smartboard placed in the middle of the whiteboards. Tutors of this centre have been using technology to support their physical lessons. The interactive digital smartboard is used actively by every tutor to make their classes interesting for the students. They also record the lectures and provide them to students who cannot join the physical classroom. Recording of the class is done in the room with a digital board only. According to the leader, this was the first centre in the neighborhood that installed a digital board at the most crucial time. The need to set up a digital board and record classes emerged from the time when Yamuna Vihar faced riots,

followed by the curfew, in February 2020. This incident disrupted the daily-life activities of the people even before the Covid-19 pandemic. To continue the teaching-learning activities, the leader employed technology and switched to an online mode of delivery. When the curfew was lifted, physical classes resumed, and a digital board was used as one of the teaching tools. Tutors designed PowerPoint Presentations to support the physical classes.

2. Management

The centre works in an organized manner. The hierarchy of roles and functions is maintained within the system. Three levels could be observed:

I) The Leader (who is the Owner and Head tutor)
II) Other tutors (For Sciences and Social sciences, they are employed by the leader)
III) Support staff (Receptionist and Security-guard)

Individuals at all three levels work together and as per the daily requirement. They practice two-way communication to enable the smooth functioning of the centre.

3. Marketing

Being placed in closer proximity to the neighborhood's leading supermarket has always been in the favour of the centre. The centre catches everyone's eye with its attractive billboards and posters showcasing the photos and results of C.B.S.E board toppers. Advertising through billboards is a persuasive strategy. It targets a specific audience with its catchy presentation. In this case, the secondary school students and their families are its audiences. Gupta (2021, p.9) found that the recognition of a tutorial as a board-based service provider is crucial to securing social legitimacy. It makes the centre reliable in the eyes of the public and multiplies the student intake.

The door-to-door circulation of flyers and handouts is the primary marketing strategy. The centre's printed study material like assignment sheets, pages of formulas, tips, and tricks is spread across the area.

The centre also has an active YouTube page, a website, and an application to send transactional and promotional messages.

4. Scheduling

The centre remains open all day, but the classes are conducted during the afternoon or in the evening. The timings of classes depend on the availability of the students. A minimum of 75% attendance in formal schooling stands compulsory for the students to be eligible to sit for the term-end exams or the C.B.S.E board exams. Therefore, private supplementary tutoring usually finds space after formal school hours.

Hours of teaching: Six to seven batches were formed for secondary school students, with a batch size of thirty to thirty-five students per batch. Regular classes were scheduled from Monday to Saturday. Everyday Mathematics and Science classes took place. Students chose their batches and timings. All the classes had fixed timings, usually an hour. And Sundays were assigned for extra classes or tests, depending on the course completion and upcoming exams.

5. Pedagogy and Assessment

Majorly, lessons were imparted using the interactive lecture and guided instruction methods (Nelson, 2016). The tutor delivered lectures, and students worked on the given problems. Meanwhile, the tutor models and facilitate the progress of the students. During the classes, activities like solving problems, reflecting on the topics, showing and explaining examples, scaffolding steps, etc., were employed. The whiteboard was used as the primary teaching tool. But, as discussed above, the tutors started utilizing technology for recording lessons during the Delhi riots situation. Students could not join offline classes because of the violent disturbance, and therefore, the centre developed alternatives to communicate and provide lessons. Usually, the tutors prepare a Portable Document Format (PDFs) of the important topics to share with the students.

Assignment sheets were circulated regularly, covering out-of-the-book and higher-order thinking questions on recently read topics. Assessments were conducted biweekly. These assessments covered both subjective and objective questions for the practice of the students. Tutors of the centre prepared these sheets as per the capabilities of different students. Timely and constructive feedback was given to the students. Feng (2020, p.198) asserts that in small tutorial centres, multiple roles are played by the employees. Similar to this can be found in centre-B, the employees performed various roles as tutors, content creators, record-keepers, examiners, etc.

4.3.3 Case III: Tutorial Centre C

The Tutorial Centre 'C' is located in C-block, Yamuna Vihar. Unlike the other two centres, this centre is placed in a residential area (housing estate), surrounded by families. The place is not commercial and hence quiet and not busy. This location keeps the tutorial centre's presence somewhat hidden. It is only known to the people residing nearby or solicited by word of mouth.

This centre has offered in-person individual and group lessons to secondary and senior secondary students for more than thirty-five years. Tutoring had always been in the family. The owner is a second-generation tutor. Before him, his father handled the tutorial centre. The centre majorly attracts the students from familiar families or prior connections maintained by the owner's father. As per the owner, usually, ex-students of the owner's father send their children or the children in their families to the centre as they have built a reliable bond.

The present tutor (now owner) holds a master's degree in mathematics from Delhi University but has no teaching degree. He started tutoring when he was twenty-five years old and has been able to generate astonishing board results since then.

Pre-covid scenario

The Functioning of Centre-C

1. Infrastructure

The centre has been functioning in a physical mode since its inception in 1987. It started as a Mathematics study centre with a single tutor. The tutor conducted classes from home in a

makeshift classroom with no appropriate infrastructure like a blackboard or desks. A single batch of eight students was given lessons using just pen and paper.

With the passing years, the centre witnessed growth. In 2016, the tutor's family shifted to another building, and the house was converted into a tutorial centre. They started providing lessons for Mathematics, Sciences, and English. The centre is not registered.

The centre operates from the ground floor of a two-story building. It has two functional rooms and a lobby. Both the rooms are designed as classrooms with whiteboards, large connected desks, and resource books. The lobby functions as a reception, a meeting place, and a waiting area for the students/parents/and tutors. Basic sanitation facilities like drinking water and clean toilets were also maintained by the centre.

Digital Infrastructure: The centre worked totally on a traditional tutoring approach and had no technological tool to support the physical classes. Though, the location of the centre can be tracked using google maps.

2. Management

Before the covid-19 pandemic, the centre had a leader (who is the owner and head tutor) and three other tutors. These tutors worked as employees. They were paid every month as per the number of students in one batch. The centre had no support staff. Still, the hierarchy of roles and functions was maintained. The leader had the sole decision-making authority regarding the issues of the centre.

Two levels could be observed:

1. Leader (who is the owner and the head tutor for mathematics)
2. Three Other tutors (employees)

3. Marketing

A single small-size basic billboard and two posters with the center's name and the subjects taught on them were placed on the building wall. The billboard and the posters were smaller in size and hence not readable from a distance.

The centre solicited students through word of mouth. There are no other advertising strategies.

4. Scheduling

Tutoring was conducted Monday to Saturday from 3 pm to 9 pm. The timings were decided keeping in mind the students' other engagements, for example, school, different tuitions, etc. Sundays were usually off days.

Four to five batches were formed, with a batch size of twenty-five to thirty students. Regular classes were scheduled, and days were divided for mathematics and sciences lessons. English classes were scheduled for every Friday and Saturday. Each class lasted for about an hour. It

was on the tutor if they wanted to schedule an extra class or test on Sunday. Else Sundays were off days. Tests were usually conducted in between the regular weekday classes.

5. Pedagogy and Assessments

The tutor employed interactive lectures, and direct and guided instruction methods (Nelson, 2016) during the physical classes. The whiteboard was used as a primary tool. Questions and mathematical problems were solved on the board so that all the students could see the process of deriving the solution. The tutor scaffolded the steps. For science topics, interactive lectures and directed discussion methods were employed. Open-ended questions and discussions were the significant activities. Students were engaged in discussions during the class break and at the end of every class. English lessons were primarily conducted interactively.

Internet was only used by the tutors to prepare for the physical class, generally for giving additional examples and questions. The tutors prepared assignments and assessments sheets. Tests were conducted after completing every topic, and constructive feedback was given to the students.

4.4 During the covid-19 pandemic

The pandemic-led crisis dismantled the normal functioning of all three centres (cases). As discussed in the above sub-section, prior to the pandemic, all the centres were equipped to offer only physical classes. The use of technology was limited to supporting the physical classroom setup. Only centre-B had some previous experience of using technology in imparting lessons.

With the advent of the coronavirus pandemic, the centres' operation was not bounded to its four walls. It was now dispersing to different sites. These sites were primarily households of leaders/owners, tutors, content creators, students, and other staff members. The functional units now have different locations and addresses. Amid this situation, technology was the sole binding force. Eng (2018, p.85) asserts that technological advances accelerate the changes in the functioning of educational organizations such as tutorial centres. These changes can include centres' infrastructure, working hours, tutors' competencies, fees, etc.

The three cases presented in the study employed technology differently in their functioning. Several factors like availability of resources, capacities, knowledge, and skills of members, etc., play an active role in shaping how a centre uses the available technology and sustains.

This sub-section will present and discuss the findings derived from the semi-structured interviews of the leaders (owners) of the three centres located in the same geographical area, i.e., Yamuna Vihar. The researcher had to undergo several rounds of reading and re-reading to be able to extract meaningful and relevant data. Different matrices were designed to tabulate the data chunks for an in-depth analysis. First, a brief background of the state of functioning of each centre during the covid-19 pandemic will be laid out, followed by thematic analysis.

4.4.1 Centre-A

Background

After analyzing the current scenario, the leaders (owners) of Centre-A decided to transition from an individual tutorial centre to an Edtech start-up. To achieve the desired change, the leaders worked on restructuring the centre. It was realized that the conventional way of operation was not fruitful in dealing with the present crisis and could collapse at any time. Moreover, the lack of technological knowledge and tools worsened the centre's functioning. Therefore, a more sustainable approach was adopted by the leaders. The first and foremost step was to build a solid infrastructure that could support the centre's functioning today and in the near future. With this in mind, the leaders focused on laying a suitable digital infrastructure.

The leaders associate the centre's transforming journey with the advent of the covid-19 crisis. The crisis dismantled the smooth functioning of the centre that evoked anxiety, uneasiness, and fear among the members. The centre was the only source of income for most of its members (employees). Therefore, it was crucial to modify, re-shape, innovate, or change the current way of functioning for the centre's survival. Bicer (2021) believes that the need to modify or change is usually forced by an opportunity or a problem to solve. In this case, it was the problem generated by the coronavirus pandemic.

Leaders had to work on re-structuring the centre in response to the external environment. Many decisions were made regarding the operational units, staff members, space, resources, etc. A significant move was with respect to re-locating the centre from a rented two-story building to a rented flat in the same area. Digital studios replaced the physical tutorial classrooms. The idea was to build a platform for virtual classes by replacing the physical tutoring space. Though, all this did not happen in the blink of an eye. It took six to seven months for the centre to completely shift to a new space. The members of the centre faced many challenges during the transition process. They had to multitask. And be ready for any kind of problems or circumstances.

In his book "Antifragile: Things That Gain from Disorder" the Lebanese thinker Taleb (2014) wrote: *that some things benefit from shocks and change…, the elastic remains the same under the pressure, but the fragile becomes more durable.*

After a year-long journey of ups and downs, the centre was able to enroll more than sixteen hundred secondary school students in their online course for Mathematics and Sciences.

4.4.2 Centre-B Background

The leader (owner) of Centre-B focused more on solving the present problem caused by the pandemic. He aimed to design a plan for his centre that could sustain in challenging times. He believed that while the other sectors have generated alternatives for their functioning, the education sector should also develop tools and initiate processes for the learning to continue. He said:

"Teaching must not stop; it must be continued, both for the student's growth and for the livelihood of a teacher."

The statement highlights the two primary purposes of the leader. The first is to continue facilitating students' learning, and the second is the daily earnings of the teacher/tutor dependent on it.

Centre-B had prior experience of functioning in an online environment. However, it was for a few days at the time when the particular neighborhood faced riots, followed by a curfew in February 2020. At that time, the leader started employing technology to transmit lessons. It began with preparing Portable document formats (PDFs), PowerPoint presentations, recording small videos (for the solutions to questions), sharing them through WhatsApp groups, and scheduling live classes on YouTube during the weekends. According to the leader, it was the most crucial time of the academic year, as the exams were approaching. Therefore, the centre functioned in a way that was never thought of before. After such an experience, the leader and the team decided to install digital infrastructure like a smartboard so that in the times ahead, the centre can perform the required activities in an efficient manner.

A month later, the world stood still because of the covid-19 emergency. The Indian government followed the international guidelines and imposed a countrywide lockdown. By that time, Centre-B had one functional smartboard installed. This acted as a 'boon' for the centre. During the initial lockdown phase, the leader, who was one of the tutors, took maximum advantage of the available digital infrastructure. He started providing live classes using the smartboard and recorded them through mobile. These recordings were also uploaded on the YouTube channel of the centre. Both synchronous and asynchronous forms of classes were made available to the students. The other tutors performed the same, but they had to use pen-paper, a small whiteboard/blackboard, or a virtual whiteboard as they were operating from home and not from the centre. It was not a smooth process, and members encountered various challenges.

This made the leader to focus on building the key competencies of his employees (members of centre-B) for a virtual classroom. A fifteen-day training specific to how to use technology for delivering online classes was conducted for the members to function from a distant environment. It was held online through the Zoom platform. W. Li (2018), as cited in Feng (2020, p.189), reports that in small tutorial centres, the educational background of the owner plays a crucial role in tutor training. Leader-B was a qualified teacher, and due to his understanding of the educational concepts, he was able to identify the problems and plan the action required. Tutor training was one crucial step towards the effective functioning of an online learning space.

Later, with the ease of lockdown restrictions, the team scheduled proper timelines and delivered live lessons using the smartboard at the centre. Other supporting tools like a tripod, camera, secure digital memory cards (SD card), and microphone were gradually purchased for the centre.

The centre underwent certain changes in its structure to employ technology and function efficiently. The nature of the tasks was changed, which demanded a particular skill set and knowledge. Therefore, the leader focused on building the required competencies of the members.

At that time, the centre delivered lessons in five to six batches comprising twenty-five to twenty-seven secondary school students.

4.4.3 Centre-C Background

The leader of centre-C started the online classes in the same month when the lockdown was imposed. It was an instantaneous start with no planning. He believed that only the mode had changed, and the rest was the same. The way he used to teach during the physical classes, the same can be put into the online classes. He said:

Our live classes are not like anything new; we are teaching on board, just like before…

A whiteboard was used to explain and teach mathematical topics, and a mobile phone was used to connect with the students. Zoom links were generated, and students joined the classes at the scheduled time. The other tutors of the centre adopted the same style.

From the first day of the online class, challenges regarding devices, connectivity, internet, clarity, sound, etc., started to arise. It was not only from the side of the students but also from the side of the leader and the other tutors.

With not much being done to change, the online classes continued in the same manner. There was a loss of interest, and the classes became monotonous. Other tutors faced similar challenges, and by the end of the academic year 2020, they left the centre. In the new academic year, classes in the subject of sciences didn't continue. From a team of four tutors, they now had only two (including the leader).

When the first lockdown restrictions were eased, the leader started delivering lessons from the centre. A new mobile phone with a better camera quality was bought, and as a supporting instrument, a tripod was purchased. Other than this, the infrastructure of the centre remained the same. The leader was sure that he had to switch back to normal functioning and, therefore, didn't invest in any digital infrastructure. He said:

I have to come back to offline classes only, then why change anything here.

When nothing worked, the leader resumed offline classes (at the time when the Indian government banned the physical classes). The leader delivered lessons to the students in a physical classroom at the centre, and the same live class was attended by some students online using Zoom. This continued until the lockdown wholly lifted.

At present, the leader delivers physical in-person classes in two batches (size of the batch: eighteen to twenty students). He also provides private online classes to two hostel students located in Jaipur. He plans to recruit tutors for sciences and re-start the centre like before.

4.5 Thematic Analysis

The data analysis for the present study occurred simultaneously during the data collection process. It was a continuous back and forth process involving listening to the audios, transcribing, reading, coding, re-reading, identifying patterns, moving back to the field, collecting data, again transcribing, reading, coding, and so on. The researcher manually conducted the whole process, making the entire work extensive as well as exhaustive. For the in-depth analysis, the researcher displayed the data using matrices. This permitted the researcher to do a detailed analysis and further helped in cross-case comparisons. A significant reason to employ a thematic analysis was to involve research participants in the analysis

process. Six major themes were derived following a laborious process. These themes supported the research objectives of the present study. Therefore, only significant data chunks were extracted from a larger piece of data.

In the sub-section above, a brief background on the functioning of the three centres during the Covid-19 pandemic has been presented. In this sub-section, the six themes, i.e., Leadership, The Digital Infrastructure, Marketing, Pedagogy, Scheduling, and The Challenges, will be discussed in detail. These themes have been derived from the findings based on the semi-structured interviews conducted with the leaders (owners) of the centres. A constant comparison analysis is employed to understand the individual experiences and activities while comparing the cases simultaneously.

4.5.1 Theme- Leadership

One of the significant themes that came out from the data is leadership. Leadership plays a vital role in the functioning of any system. Evidence (e.g., Bush, 2008) has shown that leadership adds value to an organization and facilitates growth. Research in educational leadership has highlighted the importance of a leader in the improvement and effectiveness of educational organizations (Antonopoulou et al., 2021).

All three centres had their owners in the leading position. This is usually observed in traditional and small-scale individual tutorial centres where the owner performs the roles, responsibilities, and tasks of a leader, manager, and tutor. It was found that the leaders of Centre-B and C were also the head tutors, but this was not in the case of Centre-A. Centre-A had different individuals performing the role of leaders and tutors. The leaders employed the tutors in all three centres. Hence, the maximum power in decision-making lies in the hands of the leader.

With the advent of the coronavirus pandemic, the role of a leader became much more crucial than ever. The lockdown dismantled the normal functioning of these centres. The infrastructure which was meant to support the physical classes couldn't uphold the requirements of an online environment. It was on the leader to decide the future course of action. Antonopoulou et al. (2021, p.1) assert that digital technology has changed institutions. It is transforming processes and creating new challenges that are needed to be addressed by the leaders.

All three centres began operating from different addresses during the initial lockdown phase. These addresses were the houses of leaders, tutors, and supporting staff. The functioning was not confined to the center's main building and was dispersed to different sites. Working in this way and within this environment was new to many. And therefore, all three centres faced various kinds of challenges.

At this time of crisis, the leaders of Centre-A and B took some time to analyze the ongoing situation by following the international and national news, government updates, studying the everyday data on coronavirus cases, understanding the crisis's impact, and determining the severity of the condition. The emphasis was on studying the external environment and collecting relevant information regarding the changing scenario. Doing so enabled the leaders to analyze and take a step ahead. The leader of Centre-A engaged the team in regular discussions. He said:

At that time, we had to do continuous discussions because every day things were changing (pause). We had to do phone calls, connect members over the call and discuss…around three to four hours of team calling…. each day!

These discussions paved the way to planning for change. The leaders' effort in connecting everyone and carefully listening to the ideas and concerns established a supportive environment. In the process, the leaders effectively communicated the need for change among the members. He said:

I had to tell my team that whatever be the losses, let it be, keep offline entirely out of mind and start looking in the direction of online… So, we decided to keep offline entirely out of mind and started looking towards online.

Leader-B was aware of the unpredictability of the situation but had an optimistic outlook. He said:

No one was aware that this kind of situation will arise but everyone knows that the solution will be here, somewhere, we have to find it out.

For him, the question was not just what to do, but it was a more specific and significant one concerning learning- *what can we do for an interactive class?*

Similar to Centre-A, the leader of centre-B engaged the members in continuous discussions. The centre had already experienced operating in an online environment before the covid-19 pandemic. The members were aware of its challenges; therefore, these continuous discussions focused on answering and planning the alternative techniques that can effectively overcome those challenges.

The leader understood the importance of his role in times of crisis. He believed that being the owner and head of the centre, it was his duty to plan out a course of action. He said:

One has to lead (pause) it's the first and most crucial step in the time of crisis… some people are dependent, some are supportive, some supplement… but one has to think and start. So, I decided and started…I was the first one in this neighborhood who provided Live YouTube classes when no one else does… then installed a smartboard and now providing both offline and online classes.

For him, it was equally important to involve other members in the process. Continuous and effective communication was the key to implementing the desired activities. The interactions were not limited to the center's employees, but other stakeholders like parents and students were also consulted for suggestions and feedback. The leader said:

Some people have different kinds of abilities and it appears when a crisis comes, that is why communicating, being open to suggestions, and giving a chance to peoples' ideas can help make the process easy and the result fruitful.

The two cases represent the active leadership roles performed by the leaders of both centres. Both the leaders initiated and led the change process in their centres. On the other hand, Centre-C witnessed absent leadership. There was a lack of professional support from the side of the leader. The leader-C was finding the whole situation much more challenging than the leaders of centre-A and B. He was unsure if he would want to continue with the online classes, but because of being in the private sector, he had to look for his own survival. During the initial

lockdown phase, leader C discussed the situation and the problems with the other tutors of the same centre. He believed that he could not guide others on what to do, as he himself lacked the technical knowledge at that time, so he had asked the other tutors to just complete the syllabus. He said:

I told them to do whatever they can with what they have, the only need is to finish the syllabus as soon as possible.

By the end of the academic year 2020, two tutors had left the centre. The leader accepted their decision. He said:

For me, it was challenging to manage students as well as other tutors...so we discontinued the science classes.

All three centres had different reasons for initiating change in their functioning. Centre-A wanted to transition to an entirely online platform. The leaders established the need for change and directed the members towards the larger goal. Leader-A said:

At first, nobody knew what was happening, but it was necessary for everyone to walk in the same direction… towards the same goal. We as leaders have to make things easy for others to understand. That is why not two or three, but several calls and online meetings were taking place in a day.

The leader of Centre-B had a clear view regarding online classes. He said:

From the first day of online classes, I came to know that this will be an integral part of the education system…so we have to accept and learn what to and how to make use of it…

The centre wanted to provide interactive online classes. And according to the leader, the need to find the right platform and build the competencies of tutors were the most significant steps in bringing the desired change. He was encouraged and supported by the other members during this process.

On the other hand, the leader of Centre-C had a clear vision of returning back to physical classes as soon as the pandemic restrictions gets lifted. For him, the online classes were conducted just for his survival as there is no security in the private sector. He said:

I didn't bring any kind of changes, the only thing I did was to convince myself that I have to teach anyhow.

4.5.2 Theme- Digital Infrastructure

When the pandemic disrupted the regular functioning of these centres, reliance on technology was the only option. The changing external environment demanded digital infrastructure for the operations.

Centre-A focused on building a robust digital infrastructure. They began by conducting classes on google meet using pen and paper; after that, they used a Pen tablet (Graphics Tablet with a digital pen) for the same google meet classes. After a few months, smartboards were used when their studio was ready.

They had a vision of transitioning to an entirely online platform that required a solid digital infrastructure. Antonopoulou et al. (2021, p.13) assert that the "digital transformation is successful in the long run when organizational goals coincide with the need to adopt new digital tools." The centre's monetary resources were primarily utilized in purchasing the tools and designing the space for a conducive virtual classroom. Digital boards, pen tablets, mikes, professional cameras, studio lights, supporting devices, broadband, scanners, etc., were bought to furnish a learning studio space. The centre relocated to a different address. It was a flat with seven rooms. Out of the seven rooms, four were designed as proper studios to conduct live classes and produce recordings. Besides this, another room had desktops placed in cubicles for the content creating and editing team.

Figure: 4.1 Centre-A Digital Infrastructure

Centre-B focused more on polishing the competencies of its members to make the online classes meaningful and interactive. The center already had a digital board installed a month before the pandemic. But, this was only accessible to the leader and not to the other tutors. Therefore, the leader purchased useful gadgets and applications like CorelDRAW graphics, PicsArt subscription, online assessment tools, microphones, tripod, etc., for the other tutors' ease. The leader conducted proper training and practice sessions before starting the actual online classes with the students. He said:

I have always been a tech-friendly person, so this was an added advantage for me that I can now show my skills with the help of such digital tools.

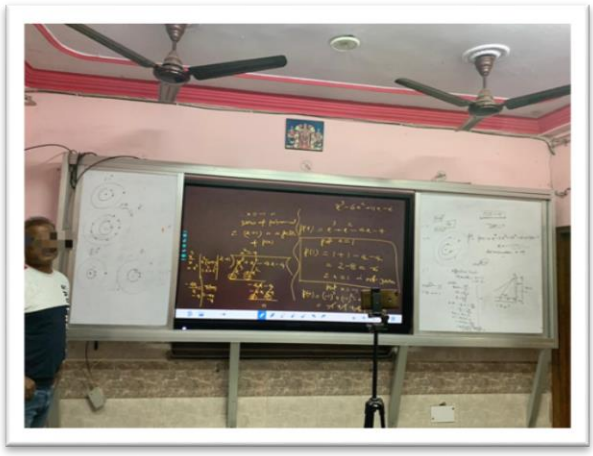

Figure: 4.2 Centre-B Digital Infrastructure

Centre-C used the least technology. The leader did not envision the centre providing online classes in the future. Therefore, the focus was not on building a digital infrastructure, and therefore, only minimal tools were bought. These include a tripod stand, Bluetooth, and a subscription to paid apps for conducting tests.

Figure: 4.3 Centre-C Digital Infrastructure

4.5.3 Theme- Marketing

Wilson & Holloway (2021) found that during the initial phase of covid-19, when the demand for tuition reduced, tutoring agencies majorly focused on two strategies to attract new clients and retain existing ones by (1) increasing marketing using social media posts, online advertisements, establishing web pages, asking existing clients to recommend them, and (2) by reducing the price. The present study's findings align with Wilson & Holloway's (2021) study in the context of the United Kingdom.

With the advent of the coronavirus pandemic, the earlier ways of marketing and advertising like hoardings and billboards were proved to be insufficient. Therefore, the centres needed to develop and adopt new practices for promoting their services.

Technology played a significant role in this process. Diverse marketing and advertising strategies were employed by centre-A and B. Both the centres focused primarily on digital marketing through websites and social media. Popular social media platforms like Facebook, Instagram, and YouTube were used extensively. YouTube channels of both the centres were active, uploading content and scheduling live classes. Centre-A had two lakh plus subscribers, whereas Centre-B had two thousand five hundred plus subscribers. Taneja & Toombs (2014, p.249) assert that these platforms provide opportunities for awareness, engagement, developing rapport with customers, and accelerating sales. The centres have also been registered on different websites like urbanpro.com, mapsofindia.com, nicelocal.in, bharatibiz.com, indiamart.com, sulekha.com, and justdial.com. Besides this, the centres and their employees have also created their LinkedIn profiles for networking.

Centre-A went a step ahead and worked on the strength of the marketing team; two individuals were recruited to strategize a plan of action. Telecalling and sending transactional messages (SMS marketing) were the initial ways of communicating. The website was redesigned, and the features of their newly started 'online' classes were highlighted. The tutors also used free Live YouTube classes to promote the centre. They would share tips and tricks for remembering topics and discuss the potential exam questions to score high. Free tests were also conducted to popularise the centre's Application.

Figure: 4.4 Centre-A Free Tests Advertisement

Catchy advertisements for affordable study packages with unique features were circulated over the social media platforms like Instagram, Facebook, WhatsApp, YouTube, and Telegram. They creatively advertised their tutors' names, photos, and subjects delivered through digital posters. These tutors were then seen as idols in the eyes of students. (Eng, 2019, p.81; Yung & Yuan, 2020, p.160).

Figure: 4.5 Centre-A Live Batch Advertisement

Figure: 4.6 Centre-A Term-2 Advertisement with Features

Catchy phrases like the one shown below were used in the posters to influence the audience.

Figure: 4.7 Centre-A Catchy Poster with Tutor

Centre-B had no specific team for marketing. The leader researched and employed possible strategies and activities for advertising. The team of tutors started by calling and texting students and their parents, trying to convince them to give their online classes a shot. Transactional messages were also sent through the centre's application. Facebook pages were created to share their posters emphasizing that they are now providing online classes. The centre's active YouTube channel facilitated the process. Online quizzes were also conducted to influence students. The leader used Live YouTube classes to communicate the features of online classes and the timings of new batches. One or two free classes on various topics were uploaded and students were asked to join the paid online course to continue learning. The leader said:

Free videos on selected topics were uploaded on YouTube and it was told for other topics join our regular course, in that we will solve your individual queries

Figure: 4.8 Centre-B Tutor Promoting Centre's YouTube Channel

Figure: 4.9 Centre-B Tutor Motivational Video

Centre-C didn't focus much on advertising. The leader seemed a bit apprehensive regarding using the internet for promotions. He said:

I think, when you use social media for this, it has more loss than actual benefit. This is because our mode is different; we like to entertain students whom we know or the students whose parents we can meet….. not like…that anyone is inquiring about classes while I am walking on the road.

He further added that he could intake the desired number of students he wanted for the classes during the pandemic, so there was no need to advertise using social media platforms.

The leader only made direct calls to the known students and their parents. He communicated that the online classes would begin by this time. His motive was to inform, build trust, and regain the customers by calling.

4.5.4 Theme- Scheduling

Research (Huang, 2020; Baker et al., 2001; Bray, 1999) has placed shadow educational activities out-of-the formal school hours. However, not (always) restricted to after-school hours. These activities are meant to supplement mainstream schooling and help students in academic achievement. The providers of private tutorials are aware of the operational nature of the industry. Therefore, tutorials are usually given beyond regular school hours (Feng, 2021).

During the pandemic, the two educational spaces, i.e., school, and tutorial centre, were restricted to one, i.e., home. The students in their homes attended all the teaching and learning activities provided by the school and private tutorial providers. Most schools functioned during the mornings, and then students attended tutorial lessons in the afternoon or evening. In all three centres, the timings of classes were scheduled after the school hours.

Centre-A described its functioning as a 24 hours job. Their classes were not limited to the Google meet platform, but they actively used other social media platforms like YouTube to

conduct free live lessons, tests, quizzes, and promotions. Besides this, they also pre-recorded the lectures for their application.

Centre-B had devoted more hours of instruction than before the pandemic. The leader said:

Hours are more than earlier now because in online classes students retain less, exactly 1.5 times the hours have increased. The work that used to get done in two hours, now fairly it takes three hours… to have that kind of effectiveness time is needed because we have to repeat, recall the things back, and if students join late then repeat again and this takes more time.

The leader planned and scheduled the class timings weekly, keeping an extra 20-30 minutes margin. Students were informed about the same. The center's working hours have increased as the tutors have to prepare more material and plan lessons beforehand for a virtual classroom.

Centre-C devoted fewer hours to tutoring than before the pandemic. The leader elaborated on the issues of access, network, disturbance, and students' queries as reasons for extended hours, but the time in teaching remained lesser than the physical classes. He also added that the students have to re-join as a single zoom session wouldn't suffice the purpose. However, his working hours have increased because he has to prepare for the next class, check pdfs, and provide timely feedback to students.

He said:

In offline classes, we give more hours to teach, whereas in online classes that is not possible, not that we don't want to, but practically its not possible…actually in online mode you can only finish the topic, you don't check , you can't make them do practice, you can't interact much… that is why hours have gotten shorten.

4.5.5 Theme- Pedagogy

Research has shown (e.g., Dhawan, 2020) that the covid-19 pandemic forced the centres to shift their traditional methods of in-person teaching to digital pedagogy. Teaching in a virtual classroom was not the same as teaching in a physical setting. This required a different mindset. In the words of O'Neil et al. (2008), *"It is not slapping classroom content online."* Therefore, a change in the instructor's pedagogy is required to make online classes successful.

Centre-A and B realized the need to change the way of imparting lessons. The leaders of both the centres worked on fulfilling the requirements of an effective online classroom. This was primarily done by employing technology and building digital infrastructure. The inclusion of digital tools and devices supported the tutor during online classes. The quality of the online lessons depended on the tutor's capability to use technology. As described by leader-A, tutors started to use highlighters frequently to emphasize the keywords during the lessons. This technique drew the attention of the student to important terms.

Centre-A had many young tutors who could benefit from the available digital tools. At first, there was a pen tablet that solved the problems of clarity and presentation. The tutor was able to deliver concepts with well-presented structures and figures. A newly constructed learning studio with a smartboard and other supporting tools further facilitated the pedagogical practices. Tutors started to add more and more pictorial representations, videos, GIFs, and

multi-media designs, in their classes. The positives of technological resources were used to bring content and experiences to the students (0'Neil et al., 2008). The leader said:

I would say that the dream line "study with fun" that is happening with the help of technology.

Another significant point is that the leaders highlighted that the tutors used real-life experiences and examples to connect the theme with the students.

The leader of centre-B focused on designing interactive and active learning activities. According to him, interactions are at the heart of learning processes. He said:

What should we do to make our classes interactive was the question…which platform to use??

Therefore, a platform where-in students can connect and communicate with the tutor is the first requirement. In this environment, the role of a tutor is to use technology to implement the best pedagogy for that particular course. This requires proper training to build and polish the competencies of the tutors. With this motive, the leader conducted a training session. This training session focused on familiarizing tutors with digital tools, useful applications, websites, content, and other resources. The emphasis was on providing a quality educational experience and not just filling students' minds with content. The leader was actively involved in the pedagogical practices of the other tutors. But also gave them the freedom to try out what works for them and their students. The leader elaborated:

My tutors are continuously trying to incorporate the use of more and more technological tools; they have been creative while using the smartboard…using a visualizer to zoom in and out the content, using different colored highlighters to point out key terms… and so on…

The leader purchased many supporting digital tools and subscriptions to many applications like CorelDRAW and Picsart. Different multimedia designs were used to prepare content for the class.

During the initial phase, lessons were not as interactive as the tutors functioned from home with limited resources and no training. Their pedagogical practices were starkly different, depending on the available technology (Johns & Mills, 2021, p.105). But after the training and with the help of other applications and tools, the quality of lessons improved. And, when the lockdown restrictions eased, the tutors started functioning from the centre using a smartboard. This further facilitated the pedagogical activities. During the classes, students were encouraged to ask questions using the audio option or through chat boxes, whatever they found comfortable.

A significant concern of leader B was that the online environment misses out on the importance of peer learning. Students are situated in different contexts and therefore are isolated from the social context of the classroom. Unlike a physical classroom, online learning provides a virtual classroom wherein students do not have greater possibilities to engage in learning processes with their peers. This physical isolation can transfer into mental, social, or emotional isolation, which can also impact the overall development of students. Therefore, an effective online course design is essential. The online course design should inculcate activities that facilitate group interactions by setting a safe space and encouraging students to participate in intellectual exchange (Lynch, 2002, p.14). A recent paper by Dhawan (2020) adds that educators must devote a significant amount of time to developing effective strategies for an online classroom.

The leader of centre-C didn't employ technology as much as the other centres. For him, just the mode of delivery has shifted from offline to online. Earlier it was face-to-face physical classes, but now one has to take the help of technology to connect. For which reliance was on the zoom platform. His view was more like practicing the same methods employed during physical classes in an online class. He was not involved in the other tutors' decisions regarding pedagogy.

All three centres offered synchronous tutoring (real-time exchange between students and tutor through video conferencing). Besides this, asynchronous tutoring in the form of recorded lectures was also provided to the students by centre-A and B. Centre-C didn't have proper recording tools; therefore, the tutoring was limited to Live classes.

Another essential aspect to consider is the types of assessment conducted by the centres. Moreover, it is equally important to know how the assessment activities occurred. A recent study by Babbar & Gupta (2021, p.8) found that educational institutions worldwide adopted online assessments for their students to measure the degree of learning in times of crisis. All three tutorial centres employed a similar approach. Centre-A had their application and website for the conduction of tests. These were primarily objective tests in the form of M.C.Qs. The feedback was generated automatically by the software without involving tutors. Though, the test questions were discussed in the classes. The center also conducted weekly quizzes online, which were open to both paid and unpaid app users.

Centre- B mainly conducted synchronous online assessments. These were real-time tests in the presence of students and the tutor over virtual platforms like Zoom. The tutors designed a set of questions comprising both objective and subjective questions. The students solved these questions using pen and paper in the given time duration. This had to be submitted in a pdf format to the tutor. The tutors checked these tests using the edit options, and constructive feedback was provided to the students. The centre also scheduled a test-discussion class after every test to have a proper discussion with the students. Besides this, additional assignment material was shared online with the students.

Centre-C started the conduction of tests using google forms. It was soon realized that the software was not helpful as it was meant for other purposes, unlike conducting tests. The leader purchased subscriptions to paid online assessment applications, which were used to conduct tests. These tests were in the format of M.C.Qs. The students had to solve those questions in their notebooks, make pdfs, and submit them to the tutor. These were checked and sent back with feedback. Additionally, an assessment booklet was provided to the students when the centres resumed in physical form.

4.5.6 Theme- Challenges

The pandemic-led crisis disrupted the normal functioning of the tutorial centres. The centres were not prepared for a sudden transition to an online mode of operation. This evoked anxieties and tensions from the sides of different stakeholders. All three centres employed technology to perform necessary functions. Though, their goals and strategies differed.

Some challenges were common to all three centres. These were the lack of digital infrastructure to support online classes, network issues, limited internet packages, apprehension from the side

of customers regarding the efficiency of these classes, and also from the side of staff members concerning the know-how of an online learning environment. The centers struggled the most during the initial lockdown phase with no suitable infrastructure in place to communicate with the members and the students. The leaders of centre-A and B scrambled to provide digital infrastructure and technical support to their tutors. As described by the leader of centre-A, they had to buy digital tools like a pen-tablet or even a microphone for double, triple of its original pricing. Because of the limited funds, the leaders had to put a lot of thought into deciding what was required, what could be the alternative, what to buy, and where to buy it from.

The challenges of an online environment also led to increased drop-out rates. All three centres had to face student drop-out during the initial lockdown phase. Lack of access to technical infrastructure and support, learning difficulties, miscommunication, negligible or less prior exposure to distant education, and teacher feedback issues are the major reasons situated with student drop-out (Lynch, 2002). Besides this, some common difficulties arising from the side of technology like downloading errors, connectivity speed, login problems, and problems with audio and visual (Dhawan, 2020) were regular.

When asked about the challenges faced, the leader of centre-B replied that there were two significant issues regarding online classes. He explained that internet and network problem was the first and foremost issue:

Each and everyone do not have a net facility with them... It was not a 'necessity' in those days…it was their choice, an option… So, if the internet is not there, then how would our classes be accessed.

And the second was the skills of teachers. He described:

The most challenging aspect was that the teacher was also not aware of these digital gadgets and their utility… because they belong to a different field, with some other kind of expertise and experience…few teachers were confused regarding what and how to do it, shall we leave it… but after developing some essential skills, they were able to manage and perform well with time.

Similarly, the leader of centre-A described how many of the senior tutors struggled to adapt to the online mode of education and could not handle the demands of the virtual classroom because of which they had to leave their job. The leader said:

Technology benefitted…but the senior faculty faced many problems and the new tutors, who were young and more familiar with tech… replaced them…the average age, which was around 42-43, is now 26-27years…

Another issue described by the leaders of center-A was that both school and tutorial classes were simultaneously occurring in an online mode. It was difficult for the students to maintain a healthy balance between school, tutorials, and social life. Another significant challenge linking this was the limited number of devices and internet data within the families. The majority of students belonged to the lower and lower-middle classes. Therefore, the centre had to function, keeping in mind such challenges. To overcome this, hourly classes were scheduled for six days a week so that the students didn't feel the burden of attending classes back-to-back. Besides this, recordings of the classes were also made available to the students.

One more major challenge for centre-A was to manage the functioning of several platforms simultaneously. As described in the sections above, during the initial phase, classes were conducted using the Google Meet platform, then YouTube classes were planned to reach the mass, and after a few months, when the centre's main Application was re-designed, regular google meet classes were shifted to Application. Besides this, Telegram groups were also used for solving students' doubts and queries. Operating through several platforms was difficult for the members.

The tutors of centre-B wanted the online classes to be interactive. The leader believed that finding the right platform was the foremost need to achieve this. The leader said:

YouTube was popular but not interactive, WhatsApp was also not practical, so the question was what to do? So slowly and gradually the popular method that came out was Zoom classes…it was the platform where we started our interactive classes... you can say interactive because if the student is connected with the teacher, they can see the teacher and as well as the teacher can watch the students through video…if not all, then at least some of the students.

Leader-B further added that the most asked question from parents was concerned with the effectiveness of these classes. Convincing parents demanded both time and effort. And it was the most essential and the most challenging task. If the business has to sustain itself, the customers (students and parents) must be satisfied. He said:

Because parents have to pay so the first question was on the effectiveness, whether it is credible or not, whether it is effective, is it worth paying for…and so on… we had to devote hours, sometimes days, to convince them.

The leader of centre-C elaborated on the issue of the shift of power from the hands of the tutor to the hands of the students. As per his experience, thirty to forty percent of students were misusing this power and flexibility. They would log in to classes and do other things, use the audio option to create disturbance, log off when a question was asked, and join back the class as per their will. He also believed that a virtual classroom could not replace the physical classroom. A physical classroom environment demands attentiveness and preparedness from the students. In contrast, in a virtual classroom, students are more than comfortable in their home environment, making them lazy and inattentive. He observed a "behavior change" in students during online classes. Engaging students was a big challenge as many were not sincere regarding online tuition. He said:

The kind of strictness and effectiveness which is there in offline mode can't be seen in an online mode…the teacher has no or little power left and the students are now the masters…you cannot keep calling them or their parents or force them to attend the classes. You yourself have limited time and a vast syllabus to complete.

One added disadvantage of such classes is the time limit of a free zoom session. It is very challenging to keep an eye on students and finish the topic in that specific time duration.

4.6 Tabular Summary of the three cases

(A)

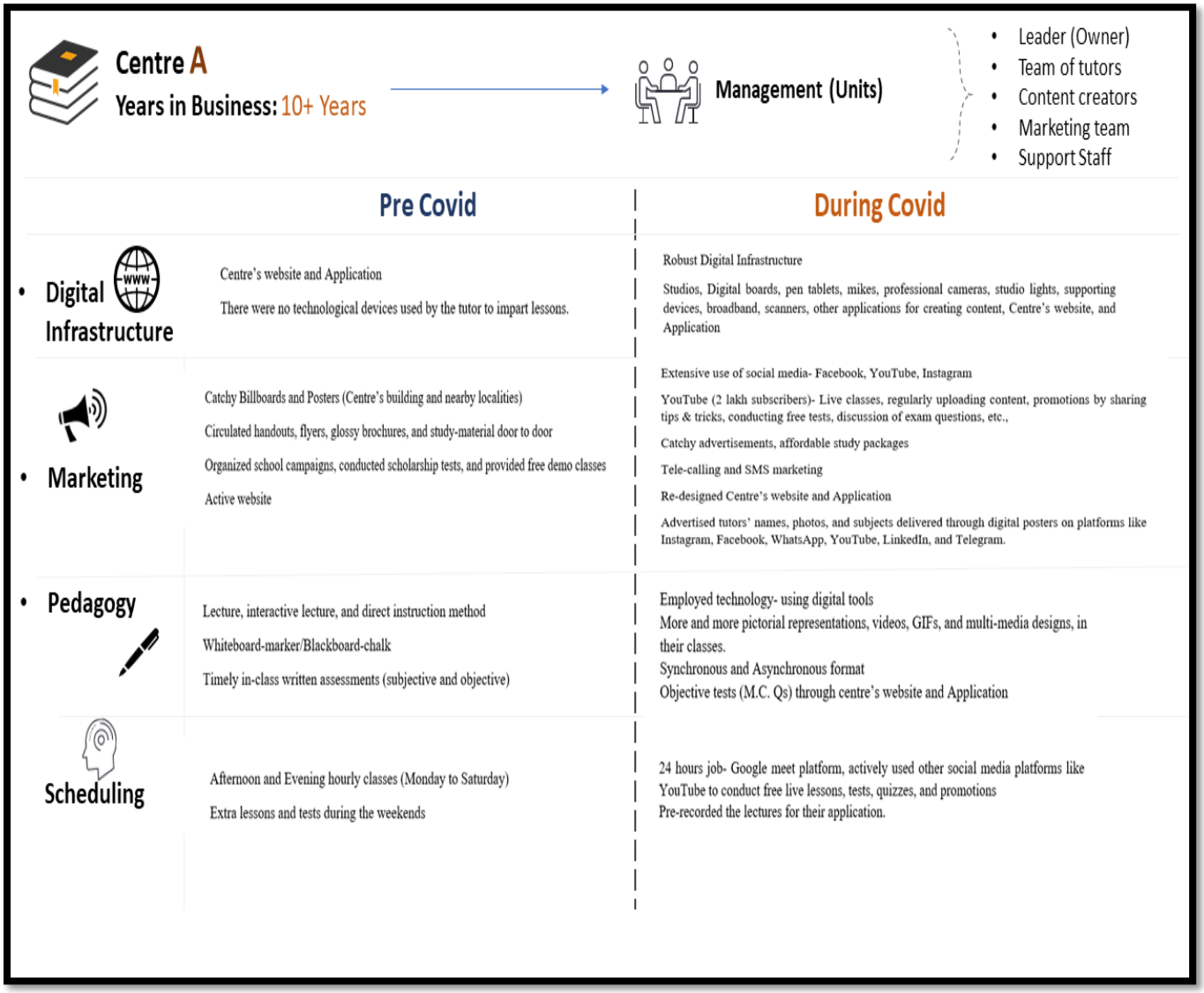

Table: 4.1 Centre-A Summary

(B)

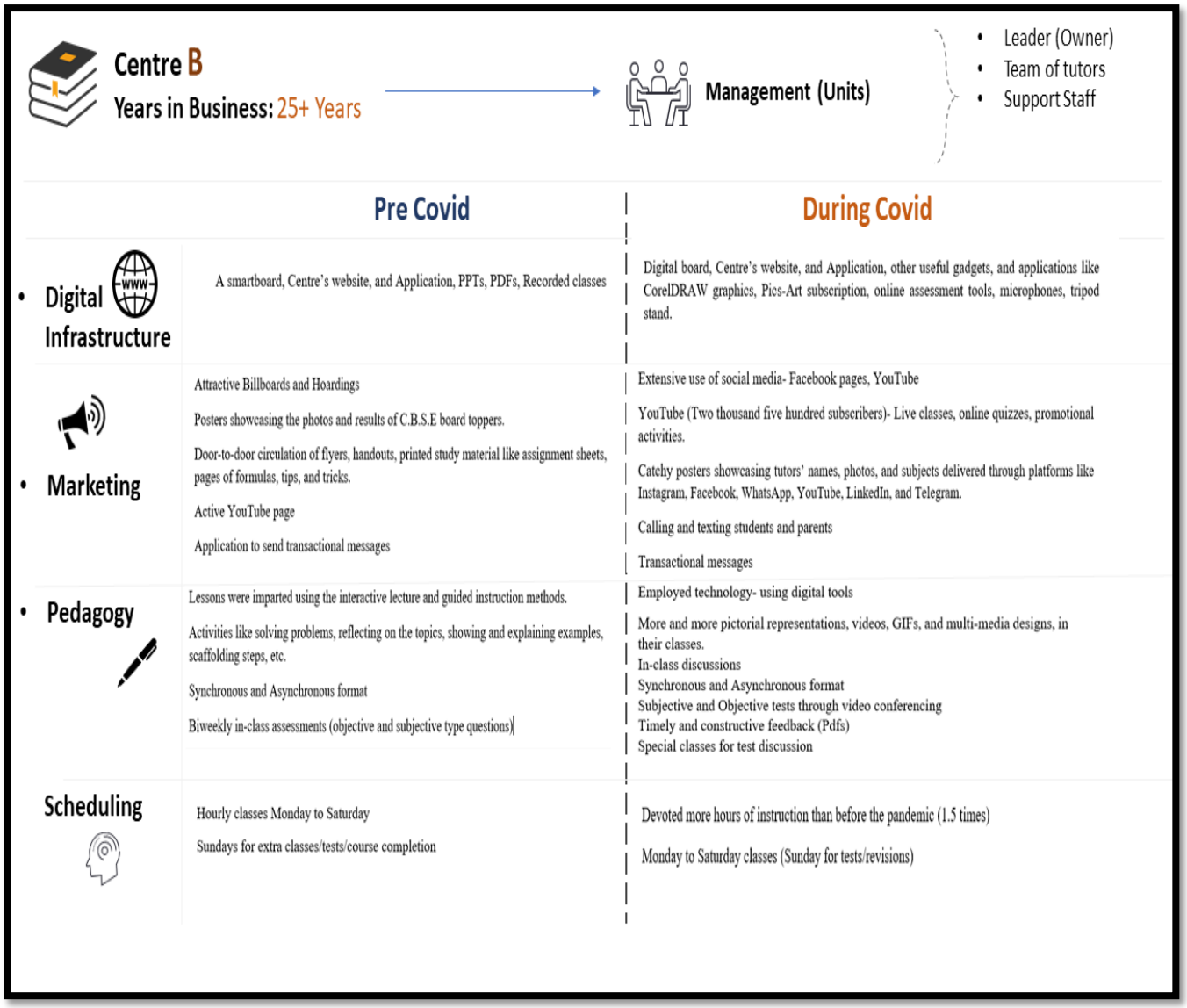

Table: 4.2 Centre-B Summary

(C)

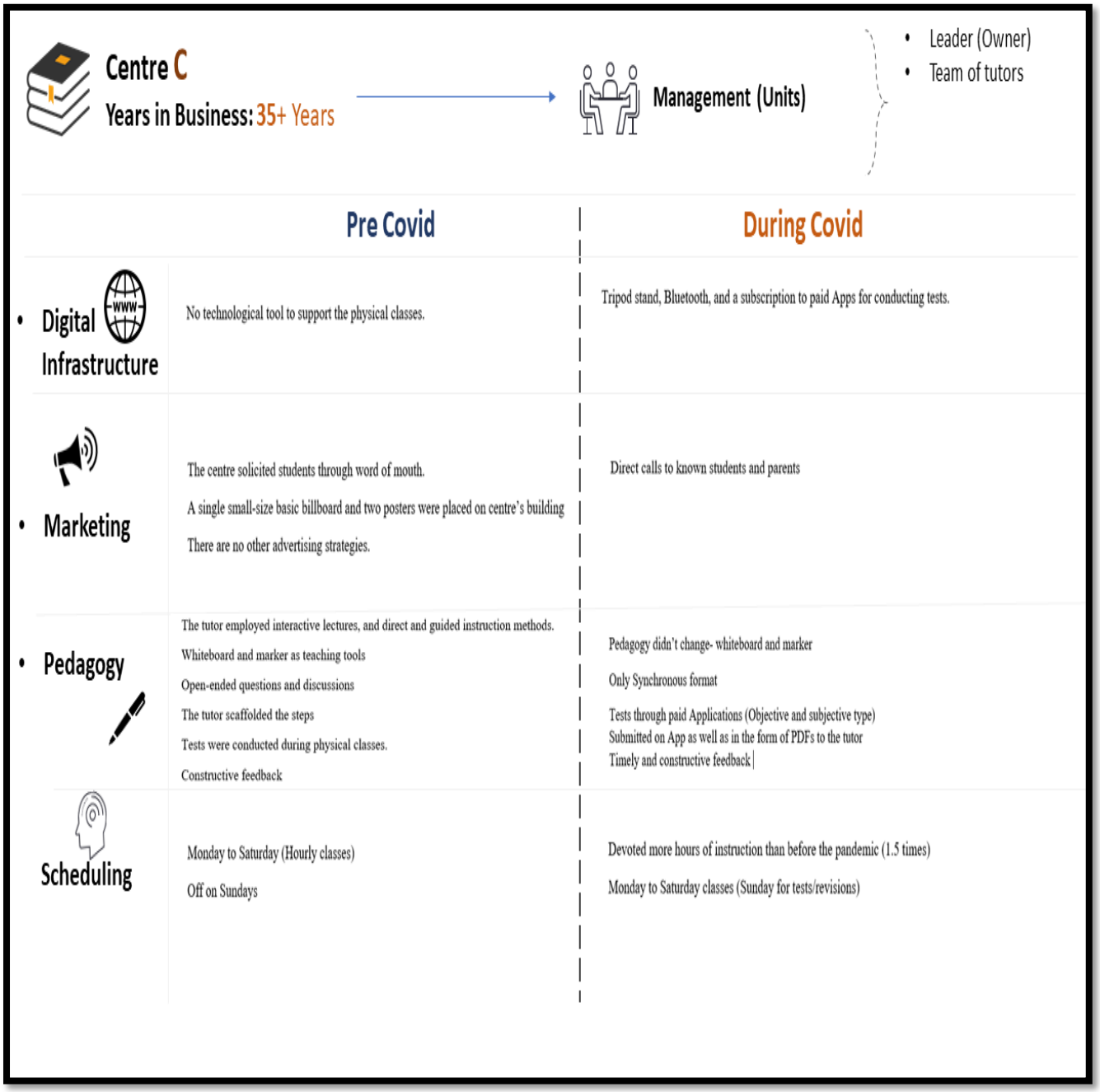

Table: 4.3Centre-C Summary

Chapter-5

Analysis and Findings

The Other Stakeholders

The previous chapter presented the findings of the semi-structured interviews with the leaders/owners of the private tutorial centres regarding their experiences of functioning the centre during the Covid-19 pandemic. This chapter focuses on presenting the findings based on the semi-structured interview with the two tutors, one from Centre-A and the other from Centre-B. The researcher didn't interview the tutor of Centre-C as the only tutor available was concerned with the English language and not with Sciences or Mathematics subjects.

The second section presents the findings based on the semi-structured interviews with the three students belonging to the three tutorial centres. The results from this chapter have facilitated the data triangulation process.

5.1 Findings based on semi-structured interviews with tutors

1. Profile of the tutors

Tutor A (Centre-A)

Tutor-A is a twenty-seven-year-old male who has been providing private lessons in mathematics for the past five years. He joined the centre-A as a full-time employee in December 2019, just before the Covid-19 pandemic. Before joining this centre, he delivered one-to-one/small-group home tuitions and worked as a part-time tutor with a nearby tutorial centre.

He has earned a Bachelor of Science in Mathematics degree from Indira Gandhi National Open University (Delhi). He is now pursuing a Master of Science in Mathematics from the same University. Apart from this, he doesn't possess any teaching degree/certificate/diploma. His tutoring journey started when his family faced a financial crisis after the loss of his father's job. Being the eldest son, the responsibility to fulfill the basic needs of the family fall upon his shoulders. He started as a part-time tutor in a nearby area surrounding Yamuna Vihar and then, from there, got many leads to provide one-to-one/small-group home tuitions on an hourly basis. His income witnessed a hike, and he started earning seventy to seventy-five thousand monthly.

He joined centre-A in December 2019 as a full-time tutor. He had to deliver a minimum of three classes every day, prepare lesson plans, plan curriculum, design activities with the content team, and deal with parents. He was satisfied with this job, as he could give time to other personal life activities, with a similar pay package as before. This was not the case when he worked part-time and traveled for classes from one place to another.

Tutor-B (Centre-B)

Tutor-B is a twenty-nine-year-old male who has provided private lessons in Sciences for eight years. He joined centre-B as a part-time employee in the year 2017. At that time, he was working as a temporary 'replacement-tutor' for the centre-B. His salary depended on the number of classes he had delivered in a day at the centre. Providing tutorial classes was part-time work (side income) for him. His primary focus was to complete his bachelor's degree and prepare for government jobs.

He has earned a Bachelor of Technology (Chemical Engineering) degree from Guru Gobind Singh Indraprastha University (Delhi). He lacks any teaching degree/certificate/diploma and has no plans to acquire one in the near future. According to him, his tutoring experience has taught him more than any degree course.

He started as a part-time 'replacement' tutor in Centre-B in the year 2017. But because of his expertise and excellent content delivery skills, he acquired a secure position at the centre. In the new academic year, he was one of the core faculty members. His income almost got doubled and he was now paid monthly.

In 2019, he cleared tier II of the Staff Selection Commission exam and started preparing for tier III. He only had one source of income which was from the tutorial centre-B. Due to the covid-19 pandemic, his exam got postponed, and recently during the start of the year 2022, he was able to sit for the tier III exam. Presently he is only engaged with the centre.

The profile of both the tutors (centre-A and B) presented the individual cases. It can be drawn from the two cases that the tutors employed were younger adults, both males. Therefore, the study sample shows a high male ratio working as tutors in the centres.

Ventura et al. (2006, p.4) state that tutoring providers can be teachers or students; they can work as employees of a commercial structure with salaries or be self-employed. A similar observation can be drawn from the profiles above. Both the tutors started their journey when they were students enrolled in bachelor's courses. Tutor-A was both salaried and self-employed before joining centre-A. After joining centre-A as a full-time tutor, his primary source of income was limited to centre-A. Tutor-B also started working as a student on a part-time basis. For him, tutoring generated side income that he could use for his daily life activities. He had the ambition to secure a government job, and therefore, other than working full-time in any corporate, he thought of working as a tutor in a nearby centre. There was time flexibility and less burden in this profession.

Regarding certification- Both the tutors were knowledge experts in their concerned subjects. They were qualified and earned university degrees. The only concern was regarding the teaching degree. Both tutors lack any kind of teaching degree/certificate/diploma.

When asked by the interviewer if they plan to pursue one in the near future. The tutor-B responded-

I think... the years of experience I possess have taught me more than any degree course (in a confident tone). I don't need any…

Aurini (2004, p. 483) describes the tutoring industry as unregulated and unstandardized. They are "not expected to conform to government-imposed education mandates" therefore, the tutors need not to be certified teachers. Similar could be seen in the present study. Till date, in India, there's no national policy concerning the shadow industry. The sector remains unregulated, and the individuals follow the self-made norms.

2. Pedagogy

The researcher has focused on online pedagogical practices. The covid-19 pandemic had added the dimension of technology to the functioning of these centres. It has become a significant component of the conduction of lessons, which was not the earlier case. With this, the image of a traditional tutor has shifted to an e-tutor with multiple roles to perform (Denis et al., 2004, p.4). This sudden shift requires proper training to build key competencies and skills needed for an online space.

The interviewer asked questions regarding training for a virtual classroom that includes the use of digital tools, initiating conversation, content delivery mechanism, development of modules and assessment tools, etc.

(It should be noted that when the researcher conducted interviews with the tutors, the centres were providing both in-person and online classes. Centre-A had assembled digital infrastructure, and classrooms were converted into studios. These studios were being used for conducting online classes. Centre-B also modified its digital set-up)

When asked about any course/program conducted by the centre on how to engage in a digital environment, Tutor-A responded that they (he and other tutors of centre-A) did not receive any training. He said:

With me, it was like; I have learnt each and everything myself… this means, I tried, failed, then learnt, then tried… in this way, everything was learned slowly and gradually.

Tutor-B and the other tutors of the same centre were given proper training (specific to virtual classroom) by the centre's leader (owner). A thirty-minute to forty-minute session was conducted online, which lasted for fifteen days. According to him, these sessions helped him to get familiar with many digital tools, which facilitated the smooth functioning of online classes. He said:

I learned a lot of things about technology and, more importantly, how to use it in my class.

When asked about the digital tools/technology used for the conduction of classes and their effect. Both the tutors mentioned similar tools. As per their responses, the basic requirements at that time were connecting devices that could support and facilitate online classes; these devices can be mobile phones, computers, tabs, etc. Tutor-A used his mobile phone and a microphone at the initial stage (first lockdown). After two to three months, it was replaced by a Pen tablet (Graphics Tablet with a digital pen) which was delivered to the tutor's home by the centre-A. It enabled tutor-A to overcome the challenges of using pen and paper, and the camera quality and clarity issues were resolved. The tutor-A believed that a subject like mathematics demanded step-by-step problem-solving techniques. It was equally important for the students to view the process carefully. Therefore, having a Pen Tablet was essential for the

conceptual clarity of the students. The software program "Google Meet" was used as a connecting platform. When the lockdown lifted, Centre-A started functioning from the organization's building. Studios were developed in a few weeks, and tutors were required to come to the centre and take classes using digital boards.

On the other hand, Tutor-B used his personal computer/laptop/mobile during the first lockdown. The software program "Zoom" was used as the platform to communicate and deliver lessons. When the lockdown was lifted, centre-B operated from the organizational building, and tutor-B used a smartboard which was installed a month before the pandemic.

Both the tutors focused on using PowerPoint Presentations (PPTs), animations, and Graphics Interchange Format (GIFs) to make lessons interactive and interesting for the students.

Tutor-B said:

Because of this madam... the explanations, like the diagrams we used to make in half an hour, now those diagrams are available to us beforehand, we can teach extra things with that diagram… so, the classes that we used to take earlier, wherein we just drew the diagram and describe it…. Now we can teach a lot more than that in that one hour… (confident tone) efficiency got increased and when the presentation is better then the interaction will surely take place.

He further added

"Whoever will see good, will learn good."

Tutor-A said:

Making students feel that you are teaching them is my motive so I try to make lessons as interesting as possible using these tools

The tutors delivered both synchronous and asynchronous classes.

3. Learning

Both the tutors had their lenses to view learning and the meanings they associated with it.

Tutor-A believed that the online environment enabled students to use technology, digital devices, and other essential applications. He highlights the activity of internet surfing that provided students access to educational resources as the most considerable advantage. He said:

And yes, one thing more, students have learned to surf the internet more efficiently… I believe that if you are searching on google, then that is also an art… to search is an art

When the researcher asked what he thinks about students' learning concerning his class, Tutor-A responded that by using a regular "poll technique," they get to know the students' present status, whether they can understand what's being taught or not. He said:

We people engage in quick polling… Are you able to understand?? Yes, or No, Yes or No, Yes or No… Give a poll… it reaches ninety, ninety-five percent

For him, not being able to resolve queries and doubts in time is the only disadvantage of the online environment.

Tutor-B associates learning with the social environment. He emphasized that connectivity issues have caused disruptions in the learning processes. With this, the social aspect of the classroom is absent. Students could not engage with their peers, which was not the case before. Peer learning has many advantages, and the students are missing out on those.

In an online environment, Tutor-B could not keep a check on each and every student because of the lack of interaction and the absence of visual cues like eye contact. Lynch (2002, p.67) asserts that tutors relied on visual and unobtrusive cues from students in a physical classroom. These cues revealed those who are attentive, tired, confused, etc., and helped the teacher/tutor to adapt according to their needs. These cues are absent in an online environment, and therefore, teachers remain unsatisfied. Tutor-B said:

We don't know whether the child is studying or not…and if he had logged in to the classes and left.

From the above two cases, it is clear that both the tutors understood the concept of 'learning' differently. Tutor-A employed a 'poll technique' for measuring learning; this, as the researcher understands, is a narrow approach towards understanding learning. Tutor-B emphasized the essential aspects of learning; the importance of physical space, peers, and visual cues.

4. Challenges

A virtual classroom set-up demands a different kind of mindset from a tutor than the one in a traditional physical classroom. In this space, the identity of a traditional tutor changes to an e-tutor. This adds additional responsibilities like scheduling online classes, generating links, facilitating the process, designing, using technological tools, etc. Delivering lessons in an online space requires serious planning before the classes and modifying/re-planning during the classes. Therefore, training to develop skills essential for an online environment stands important.

When asked about the challenges faced, Tutor-A responded by keeping in mind the difficulties he had encountered while using various software. The tutor had to learn how to run software like Open Broadcaster (OBS) and Google Meet from YouTube videos. According to tutor-A, this challenge was faced by most of the tutors in centre-A, which directly relates to the lack of training from the side of the centre's leaders (owners).

Whereas, Tutor-B weighs more on the network issues and the absence of visual cues like eye contact, which made him a bit uncomfortable and unsatisfied. He further added that when the tutoring suddenly shifted to an online space, there were hesitations regarding how the teaching activities will take place, how the tutors will manage different roles, and what if the parents were watching them. All such questions, Though, with passing time, those hesitations faded away. He said:

Many of my questions were answered during the training sessions, and the ones left were resolved with each passing day in the virtual space.

Another interesting finding during the interview was that both the tutors identified themselves more as 'teachers' and argued for using similar approaches to the formal school teachers. Their identity has two strands, i.e., 'teacher' and 'employee of the centre.' The centres have offered careers to these educated individuals and a means to generate income (Aurini, 2004, p.478). Feng (2020, p.128) asserts that the perceived identity of being a teacher legitimizes their role in society. Therefore, the individuals providing classes for-a profit motive feel more comfortable using the term 'teacher' than 'tutor.'

5.2 Findings based on semi-structured interviews with the students

The previous section presented the findings of the semi-structured interviews with the tutors of the private tutorial centres regarding their experiences of conducting tutorial classes during the Covid-19 pandemic. This section focuses on presenting the findings based on the semi-structured interview with the students. The researcher has interviewed three students belonging to centre-A, B, and C, respectively.

1. Profile of students

Student-A is a fifteen-year-old boy who got himself enrolled in centre-A a month before the start of class IX. He said:

But I joined the centre on the basis of offline, when covid was not there but suddenly covid came and because of that I had to attend online classes…

According to him, he has joined the centre to be 'perfect' in the mathematical topics by giving them more time and receiving guidance from tutors. He belonged to a middle-class family. His home was equipped with technological devices such as mobile phones, laptops, and WiFi. Therefore, he didn't face any issues concerning the problem of accessing the online classes. However, for him, the challenge was to build a suitable learning environment at home.

Student-B is a fourteen-year-old girl who joined the tutorial classes provided by centre-B following the advice of her parents and elder brother. Another significant reason for joining the tutorial classes was that she was studying in a central government school. According to her, the school classes were insufficient for scoring high in the board exams. And therefore, she had to take extra lessons out of the school hours. She further added (in a confident tone):

The way sir (tutor) teaches is far better than my school teacher. The tips and tricks shown by sir help in building a better understanding of concepts…

The finding coincides with the previous work by Koh (2012;2014), emphasizing the perception of students concerning tutorial centre tutors as better pedagogues than the formal school teachers. This acts as one of the pull factors for the tutorial centres. Student-B has attended both in-person physical classes and online classes offered by centre-B. Before the covid-19 pandemic, regular physical classes were conducted by the tutors. Students were asked to come to the centre at a particular time. They could interact with the tutor and their peers more freely

in such classes. Online tuitions were accessible to her as she had suitable devices available at home.

Student-C is a fifteen-year-old girl who started with the mathematics tutorial classes offered by centre-C when she was in the middle of the academic year 2020-2021 (IXth standard). She had to opt for tuition because the concepts were new to her, and there was no support from the side of the school during the pandemic.

She had sufficient devices to support her online classes. The only problem was that she couldn't understand the process of joining classes using links and IDs, but she got well-versed with it after a month or so.

2. Course design and Pedagogy

When asked about the course design, student-A articulated that there was no particular course design or defined schedules during the initial lockdown phase. The tutor used to select any topic and would start teaching that during the class, which was usually followed by a discussion on what to study in the next class. This changed after the first wave, and a monthly schedule was provided to the students. At first, the design of the course was unorganized, but it took an organized form with time. Additionally, students were informed about the pre-designed modules of different chapters available online on the center's website, which the students could access anytime.

Student-B described the structure of the course design as organized. A weekly schedule was circulated among the students. The schedule had a list of topics to be covered along with its practice session. The tutor taught sixty percent of every chapter, setting a solid base and the forty percent was on the student to practice. Then after covering the sixty percent of the next chapter, the tutor would return to the previous chapter to discuss and cover the problems of the left out part. Through this, continuous revisions were done, and concepts were polished.

For Student-C, the course design was similar to that of the schools. The same topics were covered simultaneously in the formal school and tuition classes.

Regarding the pedagogy of the tutors, student-A found that there were no significant differences in the delivery of lessons compared with his school classes. He said:

The same google meet platform was used; the teacher taught, we listened, but yes many digital tools like a virtual whiteboard, pen tablet, and smartboard were used by the tutors… sometimes lessons seemed interesting with animations and gifs presented in between.

Student-B mentioned the active use of smartboard, animations, and 3-D images during her tutorial classes. The tutor scaffolded the process of learning by continuously interacting with the students. She said:

Sir had a smartboard, so like the chapters on Geometry, he used to draw those geometry questions on the smartboard using a digital pen. Rotate images and use highlighters… making the figures look attractive. He would then ask us, what would be the next step for making a right angle on this figure… he would suddenly take a name, then that student had to answer…like this, our classes went on.

Student-C described the classes as regular classes; the tutor used no technological tool. It was more of a lecture-style approach.

3. Learning

When asked if the student was able to understand the lessons taught. Student-A replied,

Yes! "Almost," but there was a lot of disturbance from the side of other students…they used to speak a lot and didn't let others to ask doubts…

The centre designed assignments of different chapters in the format of the quiz. A link to the weekly quiz was shared with the students, and based on that students' ranking chart was prepared. It also conducted fortnight tests in the form of M.C.Qs through its application or website (200 questions). Though, subjective questions in both tests and assignments were completely missing. The student said:

Even in mathematics, we had M.C.Qs; many of us just marked the options by guessing and not solving… not every time, but when I felt bored or tired.

Tutors were not involved in the feedback process. Automatically, the right answers with their explanations were provided by the software.

On the other hand, Student-B was more than satisfied with the lessons taught. She said:

"yes, of course" and if we were not able to understand then sir would say 'your face is telling me that you didn't understand' and then we would laugh and he would repeat the topic…

The students of centre-B were asked to divide their notebooks into two parts: thirty percent and seventy percent. Thirty percent was dedicated to what's taught in the class, and seventy percent was for self-practice. There was an additional notebook 'assignment notebook' in which regular assignment questions were solved. These questions were usually out of the NCERT textbooks and included questions from R.D Sharma, R.S. Aggarwal, etc.

The tutor provided timely and constructive feedback. The tutor also edited the pdf copies with the required explanations. Student-B added:

After this, a separate class, usually on weekends, was dedicated to the assignment and test discussions… in that which question was done wrongly by most of the students, how to do that, what's required for improvement…

When asked if Student-C could understand the lessons taught during the online classes, she answered (in a hesitant tone):

Somewhat yes…at least better than the school class

She further added:

As much it was possible in an online mode, sir taught that, and from September onwards we had offline classes… which were more helpful for me to understand.

The centre-C didn't provide the supporting material like assignments online. The assignment book was collected physically by the students from the centre's building. Though, tests were

conducted regularly using Google docs, paid applications, etc. These were M.C.Q tests, but full solutions were asked to be submitted in pdf format. These were checked and feedback was given by the tutor by editing the pdfs.

When asked by the researcher if the student was able to enhance or develop certain skills during these classes. All three students responded that their technological understanding and skills have been polished. Like student-B said:

I am not sure about that… I guess I have a better understanding of technology now, I can use my mobile, and laptop more efficiently… my typing speed has increased.

4. Challenges

All three students belonged to middle-class families. Therefore, they didn't have to face the issues of access and availability of devices or limited internet. Student-A had a concern regarding the absence of a learning environment at home. He said:

Home environment is not right, there is noise, there's no study environment but if we go to tuition then we see students studying the same topic and focused…

He further added:

Offline classes have not happened even once in these two years, IXth and Xth… they are only conducting online classes even when the things are okay and the government has allowed.

Student-B had to face some issues like technical glitches, network problems, and the noisy home environment. She even added:

A bit boring too, as I could not go out and study with my friends in a more free space.

Student-C faced challenges in using the Zoom software. But with time it was resolved. Other than this she didn't face any problem.

All three students had different tutoring experiences; these experiences were strongly influenced by the kind of technology the centre (tutor) used and the tutor's involvement during the classes. Student-A was feeling a bit disconnected from the centre, whereas student B was actively engaged with the centre's tasks. On the other hand, student C was satisfied that her tutor was at least better than the school teacher.

Chapter-6

Analysis and Findings

Envisioning the future

The previous chapters have focused on describing the findings from the different stakeholders of the private tutorial centres. This chapter has attempted to present the current functioning of the three tutorial centres. It further elaborates on the future plans of the leaders for the centres' growth.

6.1 The New Beginnings

Centre-A has transformed from a traditional individual tutorial centre operating on one site to an EdTech start-up enrolling students globally. Presently, the centre has enrolled students from five Indian union territories, twenty-five Indian states, and five international countries. It has around two lakh subscribers on its YouTube channel, created especially for class IXth and Xth students. The pandemic has given their business a boost.

When the researcher asked about the future plans, the leader said (in a confident tone):

We see the future in this… Online is the future!

The leader has mentioned many advantages of online form of tutoring from the perspective of students and parents, like the affordability of the course, saving on traveling time and cost, comfort at home, security of students (especially the female gender), and so on. Ventura & Jang (2010) highlight similar factors such as safety, comfort, saving traveling time and money, the flexibility of timetables, and a stress-less, pressure-free environment for students.

They aim to expand their business by reaching the mass. According to them, the mass lies at the bottom two levels of the pyramid, i.e., the lower and middle classes. To achieve this, they have been working on reducing the course cost, making it affordable for students belonging to lower-income groups. Similar to this can be found in the case of China. Zhang & Bray (2020) highlights that low-cost mass online tutoring was done by the private tutorial providers to compete for customers and new markets.

Centre-A has also designed a cost-effective business model to make the courses affordable. Relocating the centre was one of the steps to save on high monthly rents and resources. Complementary to this can be seen in Singapore where many tuition centre owners believe that 'online classes' are the future; it lowers your bills and opens up enormous opportunities (see, e.g., Yi, 2020).

They plan to build an effective web-based classroom and focus on selecting server hardware and software that would enable smooth usage. Another is to add worthy features to their

application (App), which can add value to students' learning experience. Presently their team is working on adding an audio option so that students can speak during the class. This will facilitate healthy discussions, doubt solving, and interactions among the peer group. It will also solve the problem of managing different platforms like telegram, which was used for solving students' queries.

The centre also acknowledges the importance of training. They will be providing training to the faculty so that they can accept and embrace the change. They also plan to develop managerial capabilities in the core team. As understood by Bennett et al. (1992), these capabilities comprise knowledge, skills, and higher-order capacities like reading the situation, exercising balanced judgment, intuition, political acumen, and effectively reviewing. This has been one of the most efficient pathways to the long-term success of web-based courses.

Centre-B has made online classes an integral part of its functioning. The team is now offering both online and physical in-person classes. The Live physical class can be accessed by the students who opted for an online course using zoom software. This would work in a similar manner as it used to during the pandemic-led lockdown. The leader believes that doing so will help them connect with students worldwide, eventually flourishing the business. The centre will be focusing on designing a well-built website with a modern and professional image (Ventura & Jang, 2010, p.66). A well-defined appearance makes the site easier to navigate and attracts students (Lynch, 2002, p.38). The leader also plans to design digital progress cards for the students and parents. This progress card will store information about the student's performance from the date of joining. Through this, the students can track their records anytime.

Presently, the centre has enrolled students in online paid courses (Mathematics and Sciences) from two Indian union territories, three Indian states, and two international countries.

The centre has also re-designed its course content and structure. A list of topics was added that would be covered through online classes. This will be a blend of both offline and online activities. The change of curriculum content in tutorial centres had its roots in the centres' business considerations that with similar curricular contents, longer hours of instruction meant more revenue for the tutorial centres (Feng, 2020, p. 192).

The leader believes that the online mode of private tutoring has its challenges but also has a very important playful character (Ventura & Jang, 2010, p.66). He has devoted his time, efforts, and resources to building a conducive online environment for the learning to continue and, most importantly, for the centre's growth. He said:

I am sure I will continue with this forever, till the time I teach…Also, I believe that teaching and learning processes will only get better with technology… with the right mindset and tools a teacher can make every lesson count.

Centre-C has switched back to functioning from the centre's building and providing in-person physical classes to students. Though, the head tutor (leader) still provides private tutorial classes to two hostel students residing in Jaipur.

The leader was not satisfied with the experience of functioning in an online environment. He emphasized switching back to physical classes many times during the interview. He repeatedly said:

I have to come back to offline classes only.

When asked about his future plans and does that involve providing online classes, he answered:

I don't see a future in online classes, but…. (pause) I am 'just' saying this because working in the private sector, anything can be turned into a 'yes' … a necessity, anytime.

The leader plans to recruit new tutors for science classes and restart the centre the way it functioned before the pandemic. The students will have to come to the centre, sit with their peers and attend the classes in the tutor's presence.

It could be inferred from the findings that the leaders of centre-A and B think of technology as a means of expanding their businesses. These findings are in line with Wilson & Holloway's (2021) study of UK private tutors, which found that the tutors were keen on online tutoring because it meant they could reach a larger market of families. A larger market meant growth and profits for the private agencies.

Leader-A (Centre-A)	Leader-B (Centre-B)	Leader-C (Centre-C)
We see the future in this… Online is the future!	*I am sure I will continue with this forever; till the time I teach…*	*I don't see a future in online classes…*

Table: 6.1 Leaders' response regarding online classes

Chapter-7

Summary and Conclusion

7.1 Introduction

The present study has explored the changes in the functioning of the selected private tutorial centres during the covid-19 pandemic in Yamuna Vihar, Delhi. It has emphasized answering the following research questions-

5. What changes took place in the management and delivery mechanism of private tutoring?
6. How do private tutorial providers modify their pedagogy to conduct online classes?
7. What challenges do private tutorial providers face in an online learning environment?
8. How do private tutorial providers plan to continue their teaching-learning practices in the near future?

The previous chapters have laid out the key findings from the data collected. The results have brought forth significant insights into the varying experiences of the private tutorial providers located in the same neighborhood during the covid-19 pandemic. These experiences concerning the centre's functioning were highly influenced by the use of technology and its acceptance among its leaders and members. It was found that the centres had to undertake certain significant changes to perform the required functions and sustain their businesses in the long run.

This chapter will summarize the key findings reported in the previous chapters. The study's research questions have emphasized exploring the changes induced by the pandemic in the functioning of individual private tutorial centres. Therefore, this chapter will synthesize the processes involved and their challenges. It will then move on to discuss the recommendations. The study's implications will be presented, and the researcher will acknowledge the study's limitations. Lastly, it will suggest ideas for future research work in the same area.

7.2 Synthesis of the findings

Chapter- 4, 'A Holistic Picture,' highlighted how the three centres operated before the covid-19 pandemic and the changes that were introduced in their functioning with the advent of the coronavirus pandemic. The focus was on the centre's infrastructure (specifically digital infrastructure), management, marketing strategies, scheduling, and pedagogical practices. The chapter also elaborated on the challenges faced by the providers in transitioning to an online mode of tutoring.

This study has found that all three centres developed alternatives to function during the pandemic because the in-person activities were ceased. These alternatives were highly governed by (a) the availability of resources, (b) the level of acceptance of technology, and (c) the extent of the use of technology by the members of the centres. All of these factors require proper knowledge and training. In doing so, the role of leaders (owners) stood essential.

In Chapter-4, leaders' discussion regarding their role has accentuated the importance of leadership skills for any system. Stobierski (2020) contends that for a successful transition, leaders have to look at the broader picture; they should understand the 'why' aspect of change and effectively communicate that to the members. They should be mindful enough to assign the roles and responsibilities to the members as per their capabilities. And should support and motivate the team throughout the process. The study found that the leaders of centre-A and center B collected relevant information about the changing needs, responses, technology, etc., of the external environment. They analyzed and reflected on the ongoing situation. In doing so, the leaders maintained effective communication channels between the members of the centre. It was not a one-day process, but continuous interactions shaped the way forward. The emphasis was on studying the external environment for the centre's survival and growth. The leader of centre-C lacked the knowledge of how to initiate the change process. Even after continuous struggles during the initial phase of the lockdown, the centre was not able to function properly and meet the expectations of the students.

In all three cases, technology has played an essential role in the change process; the centres using and taking advantage of technology were seen in a better position than those struggling to adopt the technological advances. Therefore, the shadow sector has to prepare and be ready for the future so that it doesn't get caught by technological disruption (see, e.g., Yi, 2020). Another significant finding from the study was about building supportive digital infrastructure. Centre-C had an apprehension concerning the effectiveness of technology and therefore focused on utilizing the minimum required technological tools. On the other hand, centre-A and centre-B incorporated specialized tools and devices as per their leader's envisioned future.

The extent of the use of technology and the critical competencies of a tutor modeled the pedagogical practices of a virtual classroom. It was found that the tutors of centre-B planned more interesting and creative lessons than the tutors of centre-C and A. This directly relates to the training sessions designed by leader B. Previous studies (Denis et al., 2004; Barker,2002) have shown that online tutoring demands a new kind of pedagogy that requires a different skill-set. The e-tutor has to perform various roles such as social, managerial, technological, and pedagogical. This requires training specific to the online environment. The strategies adopted by the tutor and their way of managing activities and engaging students during the sessions stand essential for an effective online class (Sembiring, 2018). This also affects students' satisfaction during online classes (Gopal, 2021).

Centre-A and B employed diverse marketing and advertising strategies. Extensive use of popular social media platforms placed the two tutorial centres in the limelight. Taneja & Toombs (2014, p.249) assert that these platforms provide opportunities for awareness, engagement, developing rapport with customers, and accelerating sales. Both the centres witnessed growth. In contrast, centre-C had to face student drop-outs and low enrolment because of the lack of social media presence.

In chapter-4, the dissertation also discussed the challenges faced by the three tutorial centres. Lynch (2002) asserts that change is inevitable; it depends on individuals to decide whether to become part of it or be its victim. The members of all three centres had gone through the same dilemma. During the initial lockdown phase, the centres shared many challenges, such as the lack of digital infrastructure, technical support, skills, connectivity issues, etc. Besides this, each centre had its own operational challenges (described in detail in chapter-4).

Chapter- 5 focused on the experiences of the tutors and students belonging to the three centres. The findings helped in triangulating the results of the study. It was found that the tutors of centre-A and B were supported by their leaders during the change process. Tutor-B was given proper training specific to the demands of a virtual classroom, and tutor-A was equipped with advanced digital tools. However, tutor-A had to learn the know-how of using such tools all by himself. Next, the discussion focused on the pedagogical activities and their impact on students' learning. Finally, the chapter presented the challenges faced by the tutors.

The chapter further elaborated on the students' experiences of receiving online tutorials. All three students belonged to middle-class families; because of this, they didn't face any access issues. However, the difficulties arising from the technology's side, like connectivity speed, login problems, etc., were common. The findings also highlighted the technological skills that were being developed due to the online classes. Relevant discussions on pedagogy and learning have also been presented.

Chapter-6, 'Envisioning the future,' describes the present scenario of the three tutorial centres. It has elaborated on the current functioning of each centre and has explored the leaders' future ideas concerning the growth of their centres. The study found that centre-A and B have envisioned employing technology for its better and smooth functioning. They see 'online mode' as an integral part of the education system. And therefore, work on building a conducive virtual environment. In contrast, centre-C switched back to the regular physical classes. Based on the findings and a rich literature review, the researcher has recommended some best practices that the tutorial centres could employ for effective online classes.

7.3 Recommendations

Due to the Covid-19 pandemic, educational activities were strongly impacted globally. The classroom had been shifted to a virtual space, and learning activities were supported by the network (Tilestone, 2004). This changed the regular functioning of educational systems. The focus of the present research was on non-formal education, specifically on private tutoring. Therefore, the recommendations presented below are put together, focusing on tutorial centres. From a rich review of literature, Johns & Mills (2021, p.102) assert that "online tutoring can be a viable alternative to face-to-face tutoring." But, this requires little reflection on how it can be done and what aspects should be kept in mind.

The present study has captured the significant shifts and changes in the functioning of individual private tutorial centres. The findings have illuminated the practices employed by the centres during the pandemic. Based on these findings and from a rich review of related literature, the researcher has tried to suggest practices that could be incorporated by the private tutorial providers to effectively conduct online sessions.

1. Digital Infrastructure-
   Infrastructure has played a vital role in the functioning of the three centres studied. With the advent of the coronavirus pandemic, the tutorial centres struggled to function with the available infrastructure, which lacked digital tools and devices. The complete lockdown compelled educational institutes to realize the need for/and strengthen their technical infrastructure and services (Jena, 2020, cited in Suneja & Bagai, 2021, pg.1). The same was found to be the case with the private tutorial centres. Building a digital infrastructure was a necessity for its smooth functioning.

2. Synchronous and Asynchronous tutoring platform-
   Real-time classes using video/audio conferencing have been the popular approach of all three centres. This platform offers immediate feedback and discussions. However, centre-A and B also provided recorded lectures to resolve the issues of access, network, low internet, etc. Johns and Mills (2021) have recommended using both synchronous and asynchronous formats to support the students. The asynchronous method can include dialogue through emails, text messages, recorded audio/videos, channels for discussion, etc. For the synchronous platform, Lynch (2002, p.12) suggests that a tutor should allow the time for processing in between and after the classes, plan activities that require analysis, evaluation, and application of concepts, and should design assignments to enhance and check metacognitive actions for strengthening learning and retention.

3. Safe virtual space
   The centre should focus on building a safe virtual space where students communicate without hesitation and engage in meaningful knowledge exchange.
   Exploratory research by Sembiring (2018) concluded that tutor learning strategy is the most influential factor to an effective online tutoring program, followed by the perception of technology and rationale for using the internet. This means that the strategies of a tutor, their way of managing activities, engaging students in sessions stand most important for an effective online class. Similar to this was indicated by the findings presented by Gopal et al. 2021 that instructor's quality is the most prominent factor that affects students' satisfaction during online classes. Therefore, an instructor needs to be efficient and enthusiastic during online classes.
   The tutor can focus on modeling a communication style by shaping the format of the class proceedings. Encouraging and motivating students to produce answers, or lead discussions during the class. Starting the session by encouraging students to introduce themselves. The tutor should also make contact with students by sending greetings, providing notes of encouragement, praising them, uploading monthly progress cards, and keeping a check on them via messages or other means of communication.

4. Training
   The findings derived from the three tutorial centres have highlighted the importance of tutor training. Tutors of centre-B were provided with training specific to the demands of the online learning space and technological tools. This helped in overcoming several challenges.

The most crucial determinant concerning online education is technology acceptance in teaching. Mitchell (2009), through an in-depth case study on an educational institute, concludes that professional development played a large part in altering facilitators' and administrators' opinions about online education. The conduction of a mandatory online training program gave first-hand experience in an online setting and addressed concerns related to an online teaching-learning environment. John and Mills (2021) add to the discussion that an e-tutor has various roles to play, which require specific skills and competencies. Therefore, training should be made an essential component.

Lynch (2002, p.22) highlights one crucial element in training: to equip tutors with the art of preparing proper time management plans. He asserts that the amount of time required to design an effective online course depends on adherence to good learning principles and pedagogy. An effective online course would demand additional time as there's a learning curve for using technology, implementing media tools, and resolving technological challenges during the class. Therefore, planning activities within timelines, sticking to the schedules, and circulating weekly planners among students can help complete the syllabus within the desired duration. A time management plan has to be designed to achieve the course requirements and the needs of the students.

Besides this, tutor supervision should also be taken seriously.

5. Online Resources

The findings from the study have highlighted that the centres used different applications for different purposes, such as conducting tests and preparing content. Using these resources facilitated the tutoring processes.

Earlier online educational resources were limited to free lesson plans, downloadable worksheets, teaching tips. Today, the content has been enriched to include different types of activities for the classroom, free tools, short tutorials for the development of a teacher, e-workshops, articles, and much more (Mitsikopoulou,2013). These resources should be explored and utilized by the tutorial centres.

Tilestone (2004) asserts that media could be used to plan and introduce lessons. The tutors should take the help of technology to make their online classes interesting and meaningful.

6. Advertising

The study found that the traditional ways of advertising seemed less sufficient during the covid-19 pandemic. Centre-A and B modified their advertising strategies and used social media extensively. This boosted their business.

Majorly small individual tutorial centres advertise their services through flyers, billboards, and solicited students through word of mouth (Sriprakash et al., 2016). But today, more creative and new strategies are adopted by these centres. It is very important to reach the target customers through various channels and provide proper communication. Using technology will help build a social presence and a good reputation for the centres.

7.4 Implications of the study

The present study is situated in the most unpredictable times. When the whole world faces health emergencies due to the coronavirus pandemic. The sudden covid-19 outbreak dismantled the functioning of different sectors worldwide. The education sector was no exception. The sector had to develop various alternatives to continue teaching-learning practices.

The impact of the pandemic on formal schooling was studied worldwide. The alternatives designed and adopted by the school systems were given attention in the research writing globally. In contrast, the functioning of the non-formal education sector, specifically the private tutoring industry, received little recognition. This study has tried to reflect on this research gap.

The study makes an original contribution to the understudied side of the phenomenon of paid private supplementary tutoring in India, i.e., the supply side. Zhang & Bray (2020) have highlighted the evolving research agenda in the field. The first decade aimed at global mapping, the second focused on the supply of tutoring, and the third aimed at conceptualizing the future of education. The present research is a unique blend of the second and third decades. It has studied the supply side concerning the changes it had undergone due to the covid-19 pandemic and has gone further in envisioning the future of the phenomenon.

The research findings and recommendations could be used by tutorial providers worldwide. For example, the results have highlighted using technology and digital infrastructure for a better online learning experience. It has also emphasized the importance of tutor training specific to the demands of a virtual classroom. Moreover, it has stressed on the importance of social media presence for a flourishing business.

The results from the study may help academicians, researchers, and other stakeholders in the field of education to view the functioning of the parallel education system.

7.5 Limitations of the Study

1. The findings from the present research work cannot be generalized. These findings are specific to the selected three private tutorial centres located in the same geographical area, i.e., Yamuna Vihar, Delhi. Wilson and Holloway (2021) emphasized that there cannot be a single narrative to describe the impact of the pandemic on private tutoring. Therefore, an in-depth and critical examination of different contexts is required.

2. Small sample size: The findings are based on a small sample size. There may be varying experiences of different stakeholders.

3. Time constraints: The researcher had difficulties collecting the data due to the third wave of the covid-19 pandemic. Due to this, managing time was a big challenge.

7.6 Future directions

The pandemic has led to the development of enormous alternatives to continue tutoring practices globally. Choi & Sethi (2021, p.51) have presented an innovative way adopted by

private tutorial providers in the context of Hong Kong. This is called the "bring-service-to-your-home" business model. Many such ways of continuing the tutorial services have been employed by the providers worldwide. The findings from this study have talked about the experiences of the selected individual private tutorial providers in Yamuna Vihar, Delhi. These findings may facilitate future work on the technology-driven structural changes that the tutorial centres undertook to function effectively during the pandemic-led crisis in different geographical spaces.

Future work can also consider comparing the practices adopted by three major forms of private tutoring in India, i.e., first, the traditional/conventional form, in which university teachers/school teachers offer private tuition after official hours in their residential places or outside offices; second, the one-to-one tutoring chosen by the upper-middle-class/elites; third, the tutoring provided by educational institutions in a classroom setting (Chaudhary et al., 2021).

Another significant work can be to focus on students' learning outcomes. How these online tutorials have impacted students' learning outcomes compared to the physical in-person tutorial sessions.

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Appendices

(A) Figures

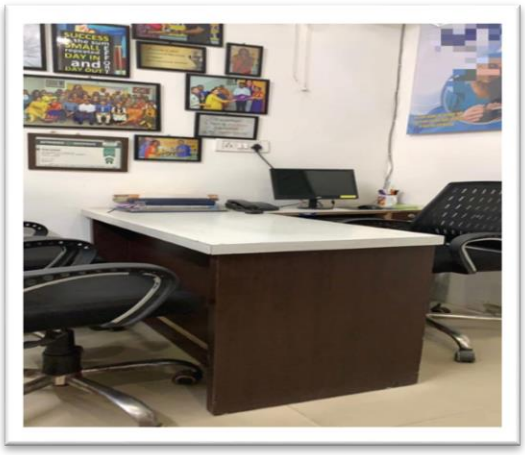

Figure: A.1 Before Covid-19 Centre-A Reception

Figure: A.2 Before Covid-19 Centre-A infrastructure

Figure: A.3 Before Covid-19 Centre-A classroom

Figure: A.4 During Covid-19 Centre-A Studio

Figure: A.5 During Covid-19 Centre-A Studio

Figure: A.6 During Covid-19 Centre-A Studio

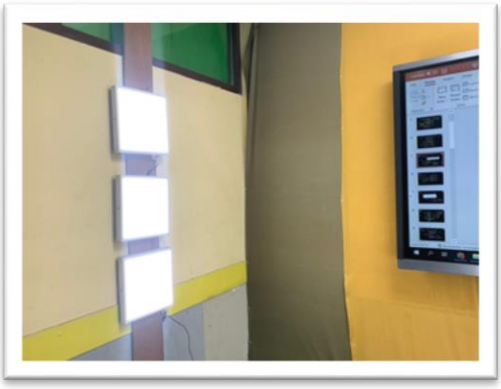

Figure: A.7 During Covid-19 Centre-A Studio lights

Figure: A.8 During Covid-19 Centre-A Multifunctional room

Figure: A.9 During Covid-19 Centre-A Multifunctional room

Figure: A.10 Centre-A Team

Figure: A.11 Centre-A Marketing Strategies

Figure: A.12 Centre-A YouTube

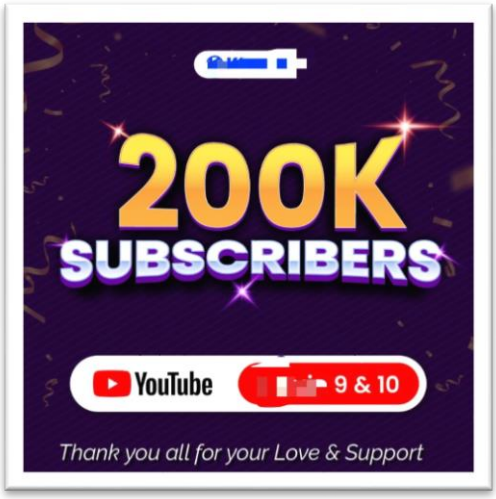

Figure: A.13 Centre-A YouTube Channel

Figure: A.14 Centre-A Digital Posters

Figure: A.15 During Covid-19 Centre-B (Location and Advertising)

Figure: A.16 Centre-B Resources

Figure: A.17 Centre-B Digital Infrastructure

Figure: A.18 Centre-C Infrastructure

Figure: A.19 Centre-C Tools

Figure: A.20 Centre-C (Location and Advertising)

(B) Semi-structured Interview Schedule

(1) For Leader (owner)

1. What type of in-person tutoring did your center offer before the covid-19 pandemic? (group/individual/both)
2. Was your tutorial center offering online tutoring before the covid-19 pandemic?
3. Is your tutorial center now offering online tutoring? If yes, then when and why did you start with the online mode of conduction.
4. If you did offer an online mode of tutoring prior to the covid-19 pandemic, can you describe whether your online mode of conduction has changed, if so, how.
5. What is the current way of working?
6. What platforms are you using for online tutoring?
7. Can you elaborate on how your online tutoring functions? (Briefly describe the working)
8. What supports/tools (external and internal) have you utilized to help your center transition to the online mode of tutoring?
9. Currently, what type of online tutoring is your center offering? (Asynchronous/Synchronous/both)
10. What changes have you incorporated in your pedagogy? If any, please describe.
11. Pedagogically, how have you witnessed the behaviors of your tutors and students as being similar or different online vs. in-person tutoring?
12. What kind of assessments were conducted in the online learning environment?
13. How has your online tutoring hours changed compared to the number of hours you previously offered for in-person tutoring?
14. If the number of hours you offer tutoring has changed, why do you think they have changed?
15. What would you say regarding your online tutoring attendance compared to the normal times?
16. What new ways of advertising have your center adopted to encourage students/parents to attend online tutoring? If any, please describe.
17. Why do you think there was a need for change in the mode of conduction of classes?
18. How did you study the demand from the market, and what did you plan to provide?
19. Does everyone relevant to the change agree on the need? If not, why?
20. Which behaviors, knowledge, and skills are desired from those involved to succeed in the change?
21. What challenges have you faced since tutoring moved online?
22. What are some of the contradictions and similarities between the current way of working and the desired change?
23. Do you foresee continuing online tutoring once the Covid-19 pandemic-related restrictions get lifted?
24. Why would you or would you not continue online tutoring once Covid-19 pandemic-related restrictions have been lifted.

25. If I ask you to look back in time, are you pleased with the kind of solution you derived to the covid-19 crisis? If not, what would you change?
26. Do you think developing an emergency plan is the need of the hour in the current unpredictable times?

(2) Questions for tutor

1. Age
2. What are your academic qualifications?
3. How many years of tutoring experience do you possess?
4. Have you or other tutors in your centre attended any course/program on using digital tech as part of training? Who conducted it? What was your experience? What was the duration of the course?
5. What devices/technology do you use in your lessons? What do you use it for?
6. How has it changed (both positively and negatively) your teaching/lessons? How has it changed (both positively and negatively) children's learning?
7. What challenges do you face in using digital tech? (technical, practical, affective – self-beliefs about using technology)
8. What kind of continued support is available to tutors (in relation to digital education) if they need it? Do you think there is enough support available? Please elaborate.
9. In your opinion, how useful was digital technology during the COVID-19 pandemic for you and your students? Please explain.
10. What was your salary before and during the covid-19 pandemic? (Only if you are comfortable in answering)

(3) Questions for students

1. Why and when did you start taking online tuitions?
2. Were online tuitions accessible to you? If not, why.
3. What would you say about the course design? Was it well organized concerning an online learning space?
4. What were the different tools/apps/technologies used by the tutor for making lessons interesting and understandable? If you know any.
5. Do you think the tutor was able to impart lessons successfully? Were you able to understand the concepts taught?
6. What kind of assignments were given? Do you think they were appropriate and sufficient? If not, why.
7. How did you get the feedback? Were you satisfied with that? If not, why.
8. What kind of challenges were you facing in an online learning environment?
9. How has online tuition helped you in developing skills (analytical, written, verbal, critical, etc.)? If it has.
10. What would you like to suggest or recommend for improving online tuitions?