Research Article

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Engineering Coaching Industry and Popular Media: Emerging Forms during the COVID-19 Pandemic in Delhi

Abstract

This study explores the transformations within the engineering coaching industry in the Indian context during the COVID-19 pandemic, situating it with an ethnographic engagement of Variance Classes, a coaching institute based in West Delhi. The study follows the phenomenon of coaching as embedded within the framework of shadow education (Bray, 2006) and develops the concept of the "shadows" of shadow education to theorise the emerging forms of coaching that intensified during the pandemic. Drawing from Bronfenbrenner's ecological systems theory (1979) and Apple's critique of neoliberal education (2006, 2019), this paper foregrounds how educational practices are actively shaped by macro-level socioeconomic forces, yet at the same time, are closely intertwined with meso-level institutional dynamics and micro-level everyday interactions and aspirations. The data were drawn from field observations and semi-structured interviews conducted with students, teachers, and the coaching centre owner-cum-administrator at Variance Classes. With this, insightful information was gathered from popular media. The findings reveal several interrelated themes, namely, the everydayness of coaching institutes, reflecting market-driven strategies, pandemic-induced changes, and the influence of popular media that actively constructs and shapes the aspirations of aspirants and legitimises the coaching industry and its integration within one's educational trajectory. These crucial findings reveal the dynamic yet adaptive nature of the coaching industry, i.e., shadow education in neoliberal India. This study contributes to the understanding of the preparatory phase—particularly for engineering education, neoliberalism, and popular media—by providing a grounded account of how Variance Classes negotiated its survival. The study also theorises the layered emergence of the new "shadows" of shadow education, having implications for policy reforms in higher education, especially in addressing equity, career counselling, and cultivating critical thinking in students.

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Introduction

In India, education has long been understood as a pathway for upward mobility (Mehra, 2017), particularly among the aspiring middle class, as it is closely tied with aspiration-driven professions such as engineering. Within this landscape, the Indian Institutes of Technology (IITs) occupy a unique status since their establishment in the mid-twentieth century. These institutions have been celebrated as "islands of excellence" (Jayaram, 2011, p. 167) that help ensure a secure employment, prestige, and global recognition. The prestige of IITs is translated into its entrance examination, the Joint Entrance Examination (henceforth, IIT-JEE) where millions of students appear for a small number of seats each year. Coaching is seen as a necessary preparatory step for qualifying for the IIT-JEE, since a vast number of candidates compete for limited seats (Mehra, 2017, 2018; Nawani, 2019). The coaching industry has emerged as a parallel educational system, described as shadow education (Bray, 2006). The phenomenon of coaching culture in the context of Kota, Rajasthan, known as the country's "coaching hub," exemplifies a classic case. Coaching advertises and thrives by promising to equip aspirants with the skills and discipline necessary to "crack" the entrance examination. Over the years, this industry has expanded and moved from a supplementary support to supplanting and actively interfering with formal education system (Bhorkar & Bray, 2018). The COVID-19 pandemic revealed the emerging forms where offline/face-to-face classes were suspended so coaching centres were forced to transition to online mode, which rapidly grew. During this phase, big edtech companies such as Byju's and Unacademy thrived, whereas smaller institutes found it difficult to continue and eventually shut down. Amid these developments, popular media such as the web series, *Kota Factory* and the marketing strategy of coaching institutes added legitimacy to the role of coaching as a necessary step.

This study contextualises the layered transformation of the coaching industry, strengthening it with the ethnographic insights collected from Variance Classes—a Delhi based coaching institute that started operating in 2020 but closed within two years amid pandemic-induced disruptions. Focusing on this single case, the study highlights the precarious everydayness of this industry, while revealing numerous strategies that helped big brands navigate their survival. The article situates these debates in the broader theoretical and structural framework

of neoliberal education in India, contributing to the understanding of shifting landscapes of shadow education.

Coaching Industry as a Face of Shadow Education in India

Shadow education refers to private tutoring which acted as supplementary support but operated from outside its regular purview, eventually growing in size and impact, mimicking the formal education system (Bray, 2006). In the Indian context, shadow education is more pronounced especially with respect to professions that require entrance examination-specific training. Cities such as Kota have become a hub of coaching institutes, where the entire local economy is structured around the aspirants (Ørberg, 2017; Rao, 2017). The spectacular presence of coaching institutes in every nook and corner of Kota (or any urban town) is witness to the grand form that this industry has taken shape of, often overshadowing mainstream schooling. By these coaching institutes, aspirants are often advised to enrol in their integrated programmes, yet at the same time become non-attending (popularly known as "ghost-registration") in the formal school. This nexus raises important concerns regarding the hollowing of formal education where the relevance of schools have been reduced to being sites of registration, and its function has been taken over by coaching institutes. The coaching industry as part of private sphere must be situated in the broader neoliberal framework which is premised on profit-making.

Aspirations of the Indian Middle-Class and the Engineering Coaching Industry

Neoliberalism emphasises on marketisation, privatisation, and competition, treating any service as a commodity rather than a public good (Chomsky, 1999; Giroux, 2002). Lissovoy and Cedillo (2016) conceptualised neoliberalism in education as a powerful regime which shapes the teacher and taught, aligning their roles primarily with the logic of economic efficiency rather than critical inquiry. Under the neoliberal agenda, Apple (2006, 2019) critiqued that curricula, teachers' roles, and the subjectivities of students gets reshaped in line with market imperatives, which are eventually manifested in commodification of education. Similarly, Kumar (2005) observed that the vision of education coloured with a neoliberal logic views education from the lens of employability and skills at best, sidelining actual intellectual development.

This commodification is depicted in one of its forms via the coaching industry that guarantees success in competitive examinations (and thereby, a respectful career), provided one purchases

this facility. Dissatisfied with the quality of public education, aspirational students and their parents prefer the private education sector to pursue a specific career (Jokić, 2013), aiming to be part of the global knowledge economy.

With neoliberalism, popular media also plays a pivotal role in constructing social imaginaries around education. Appadurai (2001) describes imaginaries as collectively shared frameworks which act as a visionary vantage point to people shaping their aspirations. He demonstrates the role of social imaginaries in constituting new forms of subjectivities in the globalising world (2001). In this scenario, popular media has increasingly depicted education as setting a new breeze of consumer-based lifestyles, wherein new neoliberal identities constitute part of this culture (Golding, 2018; Mehra, 2018). The diffusion takes place through different pathways such as education, media, circulation of labour, and opportunities for migration (Appadurai, 2001; Golding, 2018). In the Indian context, subjects such as science, technology, engineering, and mathematics are seen not only as subjects but as pathways to secure a respectable future. A degree in engineering is viewed as the "passport for a high-paying career…(and) upward mobility" and is highly preferred among other professions in the global job market (Hebbar, 2017; Mehra, 2017, 2018).

Ramnath (2017) historically traces how engineering, as one of the dominant professions, expanded and transformed in India where it was fantasised by the middle class in the hopes of a better future. After their appointment, engineers usually had a very luxurious lifestyle centred around bungalows with a dozen servants for different purposes (Ramnath, 2017). Entry to IITs now is only possible through a highly competitive entrance examination, i.e., JEE, which consists of two steps—Mains and Advanced—filtering out a massive number of students (Ørberg, 2017, 2018). The prestige of IIT is translated into its entrance exam. Preparing for and passing JEE is no less than any achievement. Lakhs of candidates every year compete for a limited number of seats (Rao, 2017). The coaching industry, in this scenario, advertises itself as a rescue option by promising to provide the examination-directed preparation to enable aspirants to qualify with a better score.

The coaching industry is referred to as shadow education as it exists and operates in the form of a "shadow" of the formal education system (Bray, 2006). Furthermore, shadow education imitates the formal education system's curricula but operates in an elusive manner, with high levels of confidentiality and a non-transparent system. The size and expansion of the Indian

coaching industry entail the fact that now it is not only seen as an option for additional support, but as a stronger and essential step for clearing competitive exams such as IIT-JEE (Bhorkar & Bray, 2018).

In relation to the education system, "coaching" is used interchangeably with other terminologies such as "private tuition" and "private supplementary tutoring", hinting at the overlapping of these various forms. Private tuition or private supplementary tutoring is classified by Sujatha (2014) as home tuitions for individualised educational support; group tuitions organised on a small scale by educators or subject-specific tutors and other organised coaching centres running on a large scale (p. 2). For this study, tuition is conceptualised as additional educational support which is individualised. Its presence can be found right from early childhood education to senior secondary classes. Coaching, however, is conceptualised as competitive examination-targeted preparation, which could be applicable to Board examinations or public sector job-oriented examinations. Of these various forms, this study focuses on engineering-specific coaching for the IIT-JEE examination, which is working as an integrated industry. As the IIT-JEE entrance examination is one of the toughest competitive examinations, it has paved the way for private supplementary educational support. The perceived need and legitimacy of coaching are such that the entire city of Kota has emerged as a coaching capital, as it houses numerous coaching centres (Rao, 2017). Coaching, as Ørberg (2018) mentioned, has become a "common middle-class youth experience" (p. 132).

Hebbar (2017) ethnographically explored the subjectivities of students studying at Chinna College of Technology, a private engineering college in Tamil Nadu, India, further juxtaposing it with a film depicting the life of an unemployed engineer as part of popular media. Triangulating her ethnographic work, the depiction of an engineer's life in popular media, and studying state policies, she argued that students selecting engineering as a profession depicts aspirations for upward social mobility. Private engineering colleges conduct rigorous training to turn their students into ideal employable engineering graduates "who (are)… not just technically skilled, but also demonstrate a basic ability to solve problems, have good English communication skills, with a sense of etiquette and ethics" (p. 39). The emphasis is on converting the student into an ideal worker, ready to fit as per the requirements of the industry. In doing this training, the subject knowledge, at times, takes a back seat, whereas soft skills and personality grooming are given more importance. Hebbar (2017) mentioned the view of an English teacher at a private engineering college, saying:

students who are future employees have to deal more with soft skills than with actual knowledge about particular situations because customers appreciate an employee who is willing to help and listen to the complaint… Hence, training the students in soft skills has become the main agenda in colleges. (p. 40)

In the market, and through the process of brand building, education is used by the coaching industry to generate profits. Hence, this has led to the collapse of higher education. The coaching industry is a result of this phenomenon. The phenomenon of tutoring/coaching and its expansion is traced in the Indian education system by Bhorkar and Bray (2018), who argued that in higher education, coaching as an additional support is prioritised alongside mainstream school education. Students often opt for an integrated course, under which they are only required to enrol in schools—they need not attend school regularly. The existing need of schools, as demonstrated by Bhorkar and Bray (2018) is because in India, students must be registered in school and qualify for the Board examinations, to be eligible to appear in the entrance examinations. Examination bodies require students to conduct practical work that is only possible in laboratories in schools affiliated with the Board and not with coaching centres (Ørberg, 2017, 2018). Coaching institutions have tie-ups with formal schools that provide ghost registration (non-attending), where one may skip regular school but not the coaching classes, as part of the preparation to crack the IIT-JEE entrance examination (Bhorkar & Bray, 2018; Ørberg, 2017, 2018).

Majumdar (2017) mentioned that the boundaries defining mainstream schooling and supplementary tutoring are blurring, as they are increasingly being shaped by market logic and exam-driven cultures among the aspirants, fostering a commercialised educational environment that prioritises measurable outcomes over meaningful learning. Though coaching portrays itself as essential for every serious aspirant to master the fundamental concepts of the prescribed syllabus, yet it deepens social inequalities within the system because expensive private tutoring cannot be afforded by many. This reinforces social inequality rather than promoting educational equity (Majumdar, 2017). From a sociological perspective, the coaching culture shifts the nature of learning from dialogic and collaborative to more individualised and competitive, reflected in Majumdar's (2017) metaphor of learning as a "team sport" (p. 278), where aspirants pursue success through quick exam-centric remedies provided by coaching,

disregarding relational engagement and peer learning. From a policy perspective, the expansion of tutoring exposes the limits of reform agendas focused solely on access or performance. The importance of mainstream schooling is limited to fulfilling the eligibility criteria for competitive exams, while neoliberal dynamics reinforce educational dualism. Majumdar's call to reclaim the "commons of the mind" advocated reframing education as a shared civic enterprise, countering the commodification of learning (2017, p. 283).

Subsequently, another reason for the expanding nature of coaching and the near abandonment of mainstream education is rooted in the nature of advertisements by coaching institutes. These institutes are closely involved in active marketing, aggressively branding themselves and highlighting the important role of coaching in higher education, which they claim is completely lacking in mainstream education. The coaching industry strongly advertises itself as a remedy option, providing the necessary competitive environment, exam-orientated approaches, tips, tricks, and shortcuts to crack specific entrance exams. Coaching classes boast of themselves as strictly directed at cracking specific kinds of exams, such as IIT-JEE, and claim they provide a fair shot to students who cannot access good education (Jokić, 2013). Instead of using terms such as "helping" students to qualify or pass the exam, the coaching industry uses specific terminology such as "cracking" the exam, implicitly portraying that the ability to "crack" the highly competitive public exam is only possible when one is engaged in specialised coaching. *Why Cheat India*[1] (2019) revealed how coaching institutes facilitated malpractices such as proxy test-taking (Nawani, 2019), in a highly organised manner. Students' and their families' aspirations are at times exploited by following unethical practices. Even though cheating is unethical, it is still acknowledged as an effective shortcut to pass competitive exams (Nawani, 2019). Similarly, *Kota Factory* (Saxena & Subbu, 2019–24) was a humble portrayal of aspirants' lives in Kota who were not only registered at (multiple) coaching centres but were also taking support from virtual platforms such as Unacademy, thereby promoting it. Another such example is *Alma Matters* (Gangwar & Agarwal, 2021), a Netflix documentary that explored the life of students after getting admitted into IITs, highlighting placement pressures and the minimal returns of a technical degree.[2] Such popular media not only reflects but actively shapes public perception and aspirants' dreams and hopes, yet at the same time,

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[1] A Bollywood film released in 2019 showcasing the nexus of cheating and corruption concerning admission to higher education institutes that hold entrance-based examinations for the public service sector.
[2] As conveyed in the documentary, *Alma Matters*, core-industry companies pay less, and other businesses such as data analytics firms or finance companies pay much higher salaries.

reinforces the centrality of the coaching industry. This fuels the degeneration of higher technical education (Mehra, 2017), where students appear to enter IITs in the hope of a better package (as advertised through different media forms) and not for exploring or furthering an inclination towards science or research.

Popular media has the capacity to capture the minds of individuals (Golding, 2018; Mehra, 2018). Popular culture does not only mirror social values but is also a potent influence, shaping our understanding of social knowledge about such institutional settings, teachers, students, student-teacher relationships, and between rhetoric and policy (Golding, 2018). Hence, personalised beliefs are converted into widely-held beliefs with the help of mass media for profit-making. When the neoliberal elites—whose aim is to privatise education—create and produce films on education, their purpose is to simply misguide the larger population through media (Goering et al., 2015). In building the image of IITs, print media and news portray the success story of one or two graduates who receive a package of crores as the average reality of every IIT graduate (Mehra, 2018). This perception that IIT-JEE is impossible to crack without coaching is built using advertising, which again adds to the coaching industry's brand-building.

In India, over the past few decades, the film industry has shown its interest in making films portraying education. Like in popular media, hoarding boards and brochures play a vital role as part of widely-used marketing strategies by the coaching industry, thereby capturing the attention of many. Pictures of rank-holders and star performers, who often get portrayed as "heroes," are used to attract aspiring students and parents to specific coaching institutes. However, virtual educational platforms which are relatively new in the field and do not have rank-holders yet, employ celebrities who have a huge fan base for possibly impacting audiences' minds to promote their education platforms. Consequently, viewing coaching as a must-step for engineering, the rise of virtual educational platforms, and the role of media in setting up the entire discourse speaks of shifting landscapes of the Indian education system.

The growing attention towards the coaching industry falls short of critically exploring it in a thorough manner, which this study attempts. While previous researchers have studied the scale and impact of coaching, hardly any study has provided ethnographic insight into everydayness of small and medium-range coaching institutes' functioning. Another significant addition of this research is studying Delhi-based coaching, which was previously underexplored, especially in the context of engineering entrance examinations. Further, the study also adds to

the understanding around the role of popular media in legitimising the coaching industry, especially during the COVID-19 pandemic, when digital platforms took centre stage in terms of pedagogy and representation. This study addresses these gaps by studying the everydayness of coaching institutes by conducting an ethnographic inquiry, simultaneously probing the role of popular media.

Theoretical Framework

This study adopts a multidimensional theoretical framework, integrating Bronfenbrenner's ecological systems theory (1979) and Apple's work on education in the era of neoliberalisation (2006, 2019), to understand the interwoven nature of India's education system in the neoliberal era. This integrated approach enables a comprehensive understanding of how macro-level economic, cultural, and policy contexts shape micro-level interactions between students, families, and institutions. By examining aspirants' lived experiences and the systemic logics that govern their educational practice, this framework situates the coaching industry within a dynamic web of social, economic, and cultural relations at large and helps to understand their total reality.

Bronfenbrenner's Ecological Systems Perspective

Bronfenbrenner's (1979) ecological systems theory conceptualised human development as a process occurring within nested and inter-related systems extended from their microsystem—that is the immediate environment—to the macrosystem, i.e., the broader socio-historical context. The microsystem encompasses the learner's most direct settings, such as their family, classroom, and peer networks, where everyday interactions occur. The mesosystem represents the interconnections between these settings, such as the relationship between a student's home environment and their coaching institute. The exosystem stems from indirect influences such as parental workplace or changes erupting from local economies. The macrosystem is shaped by broader cultural and ideological forces. Lastly, the chronosystem, also incorporates temporal changes. All these, when applied to the coaching industry and aspirants' lives, showcase how an individual's aspirations are shaped by interjections of familial pressures, institutional practices, and macro-policies, namely, in education and economics.

Applied to the coaching sector, this framework reveals how educational aspirations emerge from the interaction of multiple social layers. Aman, a student at Variance Classes was influenced simultaneously by familial expectations (his microsystem), the close interrelation

between the coaching institute and school (mesosystem), which was furthered by the coaching institute's marketing strategy of selling the "integrated package" (the exosystem), and lastly, by the COVID-19 pandemic (chronosystem) that induced technological interventions which impacted teaching-learning online.

Collectively, these inter-related systems demonstrate that an aspirant's motivations and educational decisions are constructed through intersecting familial, institutional, and ideological forces, rather than arising in isolation. This is also highlighted in Appadurai's work on aspirations, which he showed are formed in interaction with, and in the thick of, one's social life—not individually (2001).

Apple's Critique of Neoliberal Education

Bronfenbrenner (1979) offered the ecological interplay of chrono-systems, whereas Apple (2006, 2019) situated education in the neoliberal realm to understand its ideological and economic nuances better.

Apple argued that under neoliberalism, education is treated and increasingly framed as an economic commodity which is valued for its potential to produce employable subjects rather than critical, socially engaged citizens. Schools and related institutions, including coaching centres, thus operate as entrepreneurial entities that commodify knowledge, performance, and success. Apple critiqued the reconfiguration of education as a market-driven enterprise informed by neoliberal agenda. Schools and educational institutes are often evaluated based on their outcomes as return of investment in terms of fee charged and reduced expenditure, which impacts the overall learning and turns students into consumers (2006, 2019).

This framework helps to locate Variance Classes (and the coaching industry) in the broad educational space not as a service, but as a business competing in cut-throat competition with other businesses. These practices reflect Apple's (2019) work on neoliberal reforms, in which he stated that they promote efficiency and competition, while perpetuating inequality through the rhetoric of meritocracy. In this milieu, the student or aspirant is reimagined as a consumer navigating an educational marketplace—one where ambition, technological mediation, and market rationalities are tightly interwoven with each other.

This integration of frameworks allows an analysis grounded in the everydayness of coaching institute's work and uncovers the educational landscape's structural and systemic dynamics. Complementing Bronfenbrenner's ecological system approach, Apple's viewpoint on neoliberal education serves as a critical sociological framework to explore how market logics and their institutional practices restructure and redefine the educational environment in the Indian educational landscape.

Integrative Multidimensional Framework

The synthesis of both the perspectives produces a multidimensional analytical framework that captures the complex entanglement of the lived realities of aspirants and the structural power existing within the contemporary education system. Bronfenbrenner's ecological systems theory (1979) provides insights on how the surroundings of an aspirant, shapes their educational and aspirations journey. Apple's (2006, 2019) framework situates these processes within a broader neoliberal context that commodifies learning and defines success in market terms.

This integrated lens recognises education as a personal and political process, an arena where individual agency operates within and often against systemic constraints. It also highlights that the Indian coaching industry is not merely an adjunct to formal schooling but a market-driven, culturally embedded institution that reproduces and reshapes social hierarchies. By viewing coaching through this multidimensional perspective, the study advances an understanding of shadow education as a site where neoliberal ideology, digital transformation, and aspirational culture converge, illuminating how learning, merit, and success are reimagined in twenty-first-century India.

Methodology

This study adopts an ethnographic approach capturing the everyday workings of Variance Classes—the selected coaching institute—while closely studying aspirants' lives. Ethnography allows for an in-depth exploration of meanings that are "constructed in the process of engagement" with the world (Merriam & Tisdell, 2016). The urge to get selected at IITs, not for higher education or research, but in the hope of a better package and possible citizenship abroad (Mehra, 2017, 2018; Ørberg, 2017, 2018) speaks of changing educational preferences and social imagery (Appadurai, 2001; Ørberg, 2017, 2018). This shift can best be captured by conducting research of an ethnographic nature, where the role of popular media (Boellstorff et

al., 2012; Merriam & Tisdell, 2016) and its interest in education are located as part of a broader setting.

The ethnographic lens helped in examining the coaching culture, competitive examinations, and shadow education as part of the neoliberal order. In the context of the present study, the importance of IITs and coaching culture were traced by examining popular media's representation of education and the engineering profession. For examining cultural trends, social media platforms such as Facebook, social media pages of the coaching institute, and popular media representation—including web series, TV shows, and advertisements, addressing engineering education specifically—were explored and treated as a source of public data (Merriam & Tisdell, 2016). In ethnographic studies, virtual worlds represent a whole culture in and of itself, which needs to be considered (Boellstorff et al., 2012).

Variance Classes—a Kota-based coaching centre that opened its branch in Delhi during September 2020—chose a strategic location near a bus stop to maximise its visibility. During the initial phase, the institute did attract several aspirants. However, the COVID-19 pandemic-induced disruptions and intense competition from several big brands located close by led to its closure in late 2021. The data was collected between the months of January 2021 to November 2021 through participant observation in classrooms, the administrative office, and at informal spaces of the coaching institute. Semi-structured interviews were conducted with 28 students, 3 teachers, including the Physics faculty-cum-owner, 4 administrative staff, and 6 parents. The analysis included several artefacts including popular media, such as sections from *Kota Factory*, *Alma Matters*, and social media posts, as well as advertisements by the coaching institute.

Interviews took place in physical mode with all the participants and later, the interactions were transcribed. All interviews were conducted in the coaching institute's premises, the office area, visiting area, and at times, in classrooms. Proper ethical guidelines were followed for conducting the study. To build trustworthiness, I showed them my student ID card and briefly summarised my research as well as the purpose of the visit to ascertain my identity as a genuine researcher. A similar procedure was followed while interacting with each participant, every single time. Participants were not forced to respond, and informed consent was taken every time before each interaction. The medium of language was mixed, including both English and Hindi. Following research ethics and necessary protocols, respondents were given sufficient

and appropriate verbal and written information about the academic nature of their research. The assurance regarding the confidentiality of their shared information was also discussed and maintained by using pseudonyms. The voluntary nature of their participation and their right to withdraw from the study without giving any reasons or explanations were thoroughly explained to the research participants, before they consented to the interviews and field observations.

The data collected was coded in themes and rearranged as per the recurring patterns largely into three domains: the everydayness of a coaching institute, transition of the coaching institution's working from offline to online mode via virtual platforms, and lastly, the role of popular media in further strengthening the role of the coaching industry and shadow education. For the purpose of presentation, these themes are explained distinctively but have overlaps and are interconnected with each other.

Findings and Analysis

Tactful Strategies of Everyday Functioning of Coaching at Variance Classes

The everyday functioning of Variance Classes was infused with financial precarity and competitive branding to sustain itself among other branded coaching centres, as well as the strategic recruitment of teachers and field agents.[3] Before the pandemic, the coaching industry as part of shadow education was thriving, charging fees up to lakhs of rupees by marketing glittery dreams to prospective students and their families. Variance Classes operated from one of the prime locations at the selected lane. Operating from a strategically occupied prime location[4], the coaching centre used large-sized posters, hoarding boards, print, and popular media to promote their brand name and to heighten their visibility among aspirants. To save on expenses, after the first wave of the pandemic, Variance Classes shifted to smaller rental accommodations, terminated six staff members (from the cleaning department, including field agents), and operated virtually. However, since it was a relatively new institute among others located on the same lane, after the second wave of the pandemic, it could not sustain itself. In the last week of October 2021, the Delhi branch of Variance Classes shut down. During and after the pandemic, it followed many business strategies to sustain and make profits.

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[3] Field agents worked throughout the lane. They were charged with bringing new clients, i.e., aspirants and their parents to this very institute, by striking a conversation and not letting them go to any other coaching institutes located on the same lane.

[4] The coaching centre's location just behind the bus stop where the road was slightly wider than other spots on the lane made it more visible and approachable.

Management-related strategies were shared by the physics faculty-cum-owner of Variance Classes:

> *Shuru mein… pura backup lekar chalna hota hai… ye maan lo shuru ke six months to bas trial period hi hai, chalega ya nahi uske baad hi pata chalega, jese 60% students ki last instalment to aati hi nahi, usse pehle hi wo chhod ke chale jate hai, kisi bhi wajah se jese agar koi teacher ka nahi samajh aa raha ya koi aur coaching mein jyada samajh aa raha to aur 10–12 ko to fees bhi refund karke deni hoti hai aur discount vagera bhi, ya scholarship* (pause) *par chalo agar bacha padhne mein achcha hai to wo rank layega aage usko dekh kar aur 10–12 bacche to ayenge to isliye thoda concession de dete hai… par coaching chalne ko six months ke liye pura ek se dedh crore leke chalna padta hai. Bijli-paani se lekar teachers, staff ki salary, study material, toilet, desk aur rent, sab kuch mila ke bharna hi padta hai, kam bachche ho tab bhi.* (One has to start with full backup... because the initial six months will serve as a trial period to assess whether this will work out or not. For example, 60% of students do not pay their last instalment, and may leave the coaching for any reason, say, they may not be able to understand what teachers are teaching or if they are enrolled in some other coaching... and around 10–12 students might ask for the refund of the fee, a discount, or the scholarship [schemes they offer course-wise] (pause) but it is fine and doable if the student is bright, then they will get the rank and after seeing their rank, 10–12 students will come… so we have to give the concession… But it will take six months to start and establish coaching with the budget of one to one and a half crores... From electricity, water, to teachers, and staff members' salaries, study material, toilets, desk, and the rent, everything has to be paid, even when the strength of students is low.)

The above-mentioned example illustrates the entrepreneurial risk inherent in the coaching business, where regardless of the returns, the investment is heavily drawn into infrastructure and marketing, often in the hope of banking on future enrolments and good results to recover costs.

The budget planning included the total invested amount that went up to crores of rupees, keeping in mind the refund schemes that they offered at the time of admission, in case the coaching would find difficulty in sustaining for the next few months without making any margin or profit. The tactful budgeting move also reflected and touched upon the functional aspect of the coaching institute and the coaching industry in general, where incentives were used to expand their brand name. Incentives such as giving special treatment to bright students, who were their institute's potential rank-holders, since through their rank, they could market their institute's brand name. This same strategy was also shown in *Kota Factory*, which depicted coaching as a lucrative business, where the rank-holders were treated differently. The film had a scene in which the administrative staff mentioned they made a rank-holder into a hero, with a large-sized poster, a luxurious gift, and the prestige which the student got after holding a rank. Rank-holders were given those benefits not just as rewards but as an incentive to attract other aspiring students. In the race of profit-making, the students and teachers are affected by its exclusionary nature.

The owner-cum-physics faculty of Variance Classes stated that teachers having better content knowledge could charge higher and receive a good package in Kota compared to Delhi. If a teacher agreed for a lesser amount of salary, it was assumed that they might not have the requisite content knowledge that the coaching institute required, and therefore, they agreed for a lesser amount. The owner of Variance Classes candidly remarked:

> *Achcha padhte hai unka package hota hai 20 lakhs... Jo ke achche institute honge Kota ke wo dete hai, par yahan Delhi mein koi isse niche mein kar raha hai to matlab samajh lo wo good quality ka nahi hai.* (Those who teach well receive a good package of around 20 lakhs. Good Kota-based coaching institutes offer salaries in this range, but in Delhi, those who are teaching in return for a lesser salary possibly do not have good [content knowledge].)

The teachers were valued not only for their content knowledge but were also paid according to their popularity among students. Further, the teachers' salaries signalled market trends where the remuneration was equated with quality, perpetuating the commodification logic of education. In this set-up, the potential rank holder was treated as a marketing asset.

It was clearly conveyed and justified that a teacher's salary was read in congruence to their content knowledge, i.e., good payment = good teacher, and less payment meant teachers might not have expertise in every topic. He further added:

Bhai achchi quality wala hoga to wo kam mein kyu hi padhayega, kyu manega, aur jo kam paise mein maan jate hai unko pure topic nahi aate matlab… Ab jaise ki 25 topics hai main physics ke to wo teacher ko 17–18 tak aate honge, wo wahi wahi karwata rahega, aur ye baat bachcho ko ek ya do mahine unse padhne ke baad samajh aa jati hai, isiliye wo chhodke chale jate hain… Toh package bhi achcha doge tabhi achche teachers tik payenge aur bachche bhi. (Why would those who have good content knowledge agree to teach on a lesser package... and those who agree will surely not have mastery on every topic... For example, in physics there are 25 main topics, but those teachers would know only 17 or 18 topics… and they would teach only those topics on repeat... Students understand this in the span of one or two months of class, that is why [they] leave the coaching… So it is necessary to offer a good package to retain good teachers and students in the coaching institute.)

This shows that teachers were paid based on their knowledge as proclaimed by the owner himself. It did not matter if the appointed person lacked negotiation skills or had agreed to teach at a lesser cost for personal reasons. The owner also shared that "most of the teachers were offered an amount based on their popularity among the students." The more their popularity, the higher their salaries. This reflected neoliberal reforms in education, resulting in a proliferation of a continuous review and assessment process, where teachers were seen solely as individuals to transact the curriculum as it is and give results (Kumar, 2005). Lissovoy and Cedillo (2016) conceptualised neoliberalism as a power regime that aims to control key resources and processes, of which education is one part. The discipline of education is merely a political subject (Jha & Parvati, 2020). The vision of education in the neo-liberal era has been limited just to practical concerns, job skills, and marketability, as stressed by Giroux (2002). The outcomes are more valued than the knowledge served. At Variance Classes, teachers were not seen as experts but as the ones who were required to transact the prescribed syllabus for targeted competitive examinations. They must deliver good results so that they can get an increment.

These functioning strategies showcased Variance Classes' flexible but market-oriented approaches and revealed that being in the coaching business, the institute never failed to take calculated risks, showcasing a competent understanding of the shifting demands of its clients and the market. Strategies to save money, such as cutting down expenses and strategically renting prime location properties to expand, established some of the important features of the coaching institute and this industry's functioning at large.

Transition from Offline to Online Platforms During the COVID-19 Pandemic

During the COVID-19 pandemic, educational institutions started to fully digitise themselves and virtual teaching-learning was perceived as the only way to continue academic sessions. Hence, in the race for survival, many coaching centres situated in local areas shut down during the lockdown period, as these were possibly unable to continue via virtual mode. Bray (2021a) referred to the eco-system of shadow education as a multifaceted phenomenon, which had parts extending beyond the mere mimicry of the formal education system. With the changing demands of the times and the market, it kept shifting and changing its nature, at times overshadowing the formal education system.

The pandemic induced this shift of coaching from physical sites offering face-to-face classes to virtual platforms, holding online classes and eventually growing into a full-fledged virtual coaching industry. This shift accelerated by the pandemic was well-adapted by some established and branded coaching institutes, whereas the small and middle-range coaching institutes found it difficult to sustain and manage funds and expenses amid several advisories and protocols that were compulsory to follow during the pandemic. Variance Classes also adapted in the initial phase, where they shifted to a mobile application-based set-up for classroom transactions offering online classes, but with their limited resources and competition from established brands[5], it could not continue and had to shut down by November, 2021.

Students expressed mixed reactions to this transition. One Class XII student noted, "in online classes, I could pause and replay the lecture, which was helpful, but I do miss the discipline of going to class, meeting friends and studying in groups". Parents meanwhile showcased

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[5] For instance, the Merger between Byju's and Aakash Educational Services Limited.

apprehension with respect to the quality of education in the online mode. However, they were equally concerned about their children's health when the institute called them for offline classes amid the pandemic. One of the teachers at Variance Classes shared that "after the second wave of the pandemic, many parents refused to send their children for offline classes since they were not just concerned with the aftereffects of pandemic but also the Delhi riots, and this led to a significant drop in our enrolment". It was this phase which eventually led to Variance Classes' closure, since the enrolment dropped but their expenditures continued even during several waves of the COVID-19 pandemic.

The transition from physical to virtual platforms revealed a stark digital divide where relatively well-off families could access edtech platforms with ease, but students who lacked resources such as stable electricity, an internet connection, or smart devices had to suffer or rely on physical coaching sites only. The pandemic not only revealed the intricacies of the coaching industry's everydayness but also revealed how the pandemic worsened the already existing digital divide, which played a significant role in the students qualifying for the IIT-JEE examination.

The pandemic-led crisis dismantled the so-called "normal" everyday operations of the formal and non-formal education system. The COVID-19 pandemic situation was pointed out as a "watershed" event for the virtual transformation of the coaching industry and shadow education at large (Bray, 2021a). Zhang and Bray (2020) assert that shadow education has embraced technology much more rapidly than schooling and at a much larger scale. The coaching industry works on the rule of profit-making, catering to the market and their clients' demand, and hence, they had to quickly adapt themselves to provide satisfactory products, ensure their brand's visibility, and continue functioning during the crisis. Moreover, the "unregulated" nature of coaching classes as compared to formal schooling gave them a free hand to expand virtually (Bray, 2021a, 2021b; Mehra, 2018). Shadow education's virtual expansion registered its new emerging form, which had existed before the COVID-19 pandemic, but was magnified and came out stronger amid the crisis.

Popular Media as a Tool in the Rise of New Shadow Form During the COVID-19 Pandemic
Popular media played a crucial role in shaping the perceptions around the coaching industry, especially during the pandemic. Popular media was used as a tool for sustaining the industry and staying relevant in the market through advertising (Holloway & Pimlott-Wilson, 2019).

Kota Factory (Saxena & Subbu, 2019–2024) and its subsequent seasons portrayed coaching as a necessary step while also subtly endorsing Unacademy as a viable alternative. Each episode of the first season endorsed, actively branded, and normalised Unacademy with its famous tagline: "knowledge is just a subscription away". Similarly, documentaries such as *Alma Matters* revealed the pressure which students go through at IITs during placements, while also re-branding these institutes as "islands of excellence" (Jayaram, 2011) which require support from quality coaching institutes to enter.

Many small and middle-range coaching institutes such as Variance Classes could not sustain themselves, as "nearly four hundred small coaching institutes at GB Nagar, India" (Saraswathy, 2021; Jha, 2021) were impacted. Chandra (2020) pointed out the bent of aspirants towards the virtual coaching industry in the context of Kota, Rajasthan amid the pandemic:

> Many students who would otherwise have come to Kota are now opting for online classes on Byju's and Unacademy. Noting this trend, coaching institutes like Motion Academy in Kota have entered into a tie-up with Byju's and some faculty of Nucleus has joined Unacademy. (p. 21)

In the context of these changes that were taking place in the larger landscape of the coaching industry, in January 2021, there was news about the Aakash–Byju's merger valued at USD 1 billion, the highest-valued deal in the edtech space at the time, as per a Bloomberg report hinting at "the new shadow form" (Tyagi & Vardhan, 2021). Furthermore, Tyagi and Vardhan mentioned that "this acquisition would propel Byju's to compete directly with conventional exam prep companies such as FIITJEE, Allen Institute, Vidyamandir Classes, among others" (p. 2). The COVID-19 pandemic accelerated the proliferation of ed-tech platforms and created a new shadow of the shadow education system (Panda & Behera, 2021). The collaboration between the offline mode of coaching institutes and virtual platforms was promoted through popular media, where the virtual platforms took a bigger role in the spectrum of education due to the COVID-19 lockdowns. Glorifying the virtual mode of coaching since they were now accessible to wider audiences, they could share a range of resources, were more cost-effective, and less time-consuming. This further magnified the need and presence of other forms of coaching, in comparison to the offline mode of coaching.

Regarding the pandemic situation, a new shadow, i.e., virtual platforms of shadow education emerged and began influencing the formal education system. This led to the magnification of the virtual educational platforms which emerged as a "shadow" of the already existing "shadow education" during the COVID-19 pandemic. Aspirants facing financial or social constraints preferred using such virtual educational platforms for expert lectures, study materials, previous years' question papers, and so on, for preparation. These virtual educational platforms often worked as "a substitute" to offline modes of coaching, which were magnified due to the crisis, thus becoming the "shadow of the shadow form," i.e., the shadow of the coaching industry.

Through advertisements, these virtual platforms gained a better reach compared to offline coaching. They advertised themselves using catchy headlines to attract aspirants and showcased themselves as the most appropriate option amid the pandemic. One of the taglines used by such virtual platforms was, "*coaching se nikalo, soaching mein dalo*" (better to shift to critical thinking rather than coaching). With such taglines, the discourse was set by the popular media that offline coaching has now become crowded and redundant, where one cannot get proper individual attention. Therefore, one should switch to virtual platforms where proper attention is given to every student, which would eventually enhance the student's rank.

Kota Factory, directed by Raghav Subbu and produced by Arunabh Kumar for The Viral Fever (TVF), partnered with Unacademy in 2019. This series—available on TVF's YouTube channel—is around the engineering coaching industry and aspirants' lives in Kota, India's coaching capital. The web series shows the offline coaching industry in a positive light with peer support, an elder brotherly figure-cum-teacher, while tactfully suggesting many benefits of having a subscription to Unacademy, portraying the virtual educational platform as a helpful platform for competitive exam preparation. In *Kota Factory*, the online coaching industry is portrayed as an easy-to-use, appealing, and approachable tool for learning. On a virtual platform, one can pause the video, rewind, repeat, and learn any topic anywhere, establishing that "knowledge is just a subscription away" for young aspirants, coming across as a more convenient option over offline coaching. The fact that Unacademy used popular media as a tool for expansion and to promote their brand name could be witnessed in every episode. The sponsoring company's name and logo were referred to throughout the series. Personnel from the virtual platform's company arrived at the end, wearing the company t-shirt. They shared their views with the audience, encouraging them to watch their tutoring videos for further

guidance, further promoting the brand and sending the message that virtual platforms were equally good.

To students who were already under immense pressure to "crack" IIT-JEE and score well in their school's Board exams, the COVID-19 pandemic added another layer of stress and anxiety, as shared collectively by 28 students of Class XII enrolled at Variance Classes. Other than this, many students' physical and mental health were severely affected during the pandemic's waves, which adversely impacted their performance too, as shared by the counselling head of the coaching institute.

In the neoliberal context, education is treated as a product, which has led to the near collapse of higher education. The coaching industry is one of the symptoms of this degradation of higher technical education. Mehra (2017) reiterated that students enter IITs in the hope of a better package, and not because of any inclination towards science or research, since core-industry companies pay less than business analytics firms or finance companies, which pay much higher salaries. In the documentary *Alma Matters*, one episode largely foregrounds the pressure among graduates during the placement season, where core-sector companies came in lesser numbers as compared to other companies looking for coding skills. Hence, such courses— which are valued in the job market and fetch higher salaries than core-industry jobs—are preferred by graduates (Mehra, 2017). IIT graduates receiving a salary package running up to crores of rupees is propagated as the average reality of every IIT graduate. However, "the definition of academic success is now defined socially in a very narrow, monopolistic manner by the JEE, and this is propagated, marketed, and guarded fiercely by the coaches" (Mehra, 2018, p. 2). This perception was made through advertisements that IIT-JEE was impossible to "crack" without coaching, and that entering such institutes via online coaching would enable aspirants to become part of the global knowledge economy and land a job. Contrary to this, offline coaching was portrayed as inefficient, contributing to the virtual coaching industry's brand-building. This has led to the emergence of new forms addressed as "shadows" of the shadow education. Virtual educational platforms are pre-existing shadows of shadow education, i.e., offline coaching, reinforcing their unshakeable position. In this way, popular media not only reflected reality, but actively constructed it, adding to the legitimacy of the coaching industry and promoting the rise of virtual platforms.

These findings highlight the everydayness of Variance Classes, which is actively shaped by broader structural and societal forces. The sustenance struggle of Variance Classes captures the precarity that small and medium-range coaching institutes are tied up with, highlighting the competition prevalent in this sphere. The swift transition to virtual platforms also highlights how adaptive the coaching industry is to accommodate such structural shifts, expanding their appendages virtually and revealing new shadows of shadow education.

Popular media has amplified and shaped these changes, constructing aspirational imaginations that normalised the presence of coaching. Together these trends reflect what Apple critiqued as the neoliberal transformation of education, where learning is commodified (2006, 2019). Teachers, the coaching industry—as part of a privatised education service—and potential rank-holders are marketed as success stories. Bronfenbrenner's (1979) ecological lens captures multi-level interactions, right from the level of an aspirant's journey as shaped by parental decisions to business and strategic decisions of coaching institutes linked to market trends, which were impacted by the COVID-19 pandemic, leading to emerging forms of the coaching industry.

Conclusion

This article examined the engineering coaching industry in India through an ethnographic inquiry of the selected coaching institute, Variance Classes. Retaining its single-case approach while situating it in the broader context, this study shows how coaching institutes operate as precarious businesses that, at the same time, strategised and operated—even amid pandemic-led disruptions—by resorting to the virtual mode. In all this, popular media also shaped the legitimacy not just of the coaching industry but also of virtual platforms, reinforcing social imaginaries.

Extending Majumdar's (2017) observation that tutoring has become "essential," the research introduces the concept of "shadows of shadow education," capturing the post-pandemic, digital expansion of coaching. These platform-mediated layers amplify existing gaps and inequities, which further commodify learning spaces named as "integrated economy" and "ecology of coaching," where educational provision is entwined with market logics.

Sociologically, the study illuminates how coaching mediates aspiration (Appadurai, 2001) and reproduces social imaginaries (Rizvi, 2017), shaping educational choices as well as future life

trajectories. The ethnographic insights from Variance Classes demonstrate the precarious yet strategically adaptive operations of small institutes to sustain and survive during the COVID-19 crisis. These micro-level strategies reveal broader patterns of survival, competition, and marketisation in Indian education.

This study contributes to existing scholarship by adding an empirically grounded analysis of Delhi-based coaching, insights into the coaching industry, integrating ecological systems, and neoliberal perspectives on education, revealing the shadows of shadow education and the role of popular media.

The findings emphasise the urgent need for regulatory frameworks, which has come in the Ministry of Education's Department of Higher Education's announcement to regulate the growth of the coaching sector and to ensure transparency, accountability, and adherence to ethical standards (2024). However, some concerns remained unsolved, such as equity, access, and quality in offline and online coaching (2024). Career counselling and guidance should be reoriented to prepare aspirants for educational pathways that are becoming progressively stratified and market-driven. Variance Classes highlighted how during the COVID-19 crisis, small coaching institutes created and adopted strategies to sustain themselves. This reflects structural pressures, providing insights for policymakers seeking to balance effective regulation with the promotion of innovation and equitable access.

Acknowledgements

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