Bray M. (2022) Shadow Education in Asia and the Pacific: Features and Implications of Private Supplementary Tutoring. In: Lee W.O., Brown P., Goodwin A.L., Green A. (eds) *International Handbook on Education Development in Asia-Pacific*. Springer, Singapore. https://doi.org/10.1007/978-981-16-2327-1_10-1

Whole book: https://link.springer.com/referencework/10.1007/978-981-16-2327-1

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Shadow Education in Asia and the Pacific: Features and Implications of Private Supplementary Tutoring

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ABSTRACT

Increasing amounts of structured teaching and learning take place outside formal school systems. Much of this teaching and learning takes the form of private supplementary tutoring which may be provided one-to-one, in small groups, in large classes, and/or over the internet. Such provision is commonly called shadow education because much of its content mimics that in schooling: as the curriculum changes in the schools, so it changes in the shadows.

Shadow education has long been especially prominent in several rich countries of East Asia, notably Japan and South Korea. For overlapping but different reasons it has also been prominent in several lower-income countries in South and Southeast Asia such as India, Sri Lanka and Cambodia. More recently shadow education has flourished in such countries as Kazakhstan and Myanmar, and indeed it is now visible throughout the region and beyond.

This chapter presents data on the scale and nature of shadow education around Asia and the Pacific, noting commonalities and variations. The chapter includes information not only on the recipients but also on the providers of shadow education. Three main providers may be observed, namely entrepreneurs who operate tutorial centres of various kinds, teachers in mainstream schools who offer private tutoring on the side to supplement their incomes, and informal workers such as university students who desire some extra income.

From this mapping of the scale and nature, the chapter turns to the implications. On educational side, tutoring does not always enhance learning – much depends on the motivations of both the tutors and the students as well as the formats, contents and durations of tutoring. Tutoring can also have a backwash on schooling. With a wider lens, tutoring tends to maintain and exacerbate social inequalities since rich families can secure more and better shadow education than their lower-income counterparts. Private tutoring also has an economic dimension, providing incomes for tutors and ancillary support services. Regulation of the sector has been generally neglected, but is now being taken more seriously in some countries.

Keywords: household costs; social inequalities; private tutoring; private tuition; shadow education; regulation

Introduction

The period since the 1980s has brought considerable growth of private supplementary tutoring provided in parallel to mainstream schooling. It is widely called shadow education because much of its content mimics that in schooling: as the curriculum changes in the schools, so it changes in the shadows. Also, as school systems grow larger, so do the shadows (Aurini et al. 2013; Bray 1999, 2009).

The focus on private supplementary tutoring as examined here requires a definition. The word 'tutoring' commonly implies one-to-one or possibly small-group instruction. This is included in the concept as here presented, but tutoring is also taken to include full classes, sometimes even in large lecture-theatres serving hundreds of students. Next, the word 'private' is taken to mean provided in exchange for a fee. Thus free-of-charge tutoring is excluded here, even if provided privately in the sense of being outside the public space. And 'supplementary' means additional to mainstream schooling. The principal focus is on academic subjects rather than extracurricular activities such as sports and music. The tutoring may be for remedial or enrichment purposes. Particularly in the latter case, the content may extend beyond that provided by schools but it has convergent objectives in enhancing academic performance.

Shadow education has been especially evident in prosperous parts of East Asia, where for example South Korea is known for its *hagwons* (Exley 2020; Kim 2016) and Japan for its *jukus* (Entrich 2018; Watanabe 2013); but shadow education is also very evident in lower-income parts of Asia such as Bangladesh (Mahmud 2021), Cambodia (Marshall and Fukao 2019), and Myanmar (Bray et al. 2020). Patterns in China are particularly dramatic, since the phenomenon developed with great speed from the 1990s onwards (Zhang and Bray 2021), and has been the focus of high-profile government policies aiming at dampening and control (China 2018, 2021; Ni 2021, Zuo 2021). In Central Asia, shadow education became more evident with the advent of marketisation following the collapse of the Soviet Union (Silova et al. 2006; Silova 2010); and private tutoring has even been reported in North Korea (*The Economist* 2019) despite the retained strong Communist ideology in that country.

Turning to the Pacific, shadow education has become increasingly evident in Australia and New Zealand (Davis 2013; Briant et al. 2020; Dhall 2021). It is less prominent in such countries as Fiji, Papua New Guinea and Tonga, but experience elsewhere suggests that the forces of globalisation, neoliberalism and social competition are likely to cause expansion there too. Indeed shadow education is now visible in all world regions, including Africa (Bray 2021a), Europe (Bray 2021b), the Middle East (Bray and Hajar 2022), North America (Aurini et al. 2013), and South America (Galvão 2020; Lasekan et al. 2019). Even the Nordic countries, long famed for high-quality schooling that caters for diversity and does not need supplementation, have experienced emergence of the phenomenon (Christensen and Zhang 2021).

With such matters in mind, this chapter commences by mapping the landscape in Asia and the Pacific. It then elaborates on demand and supply of shadow education, before considering the implications of the phenomenon for regular education systems and wider societies. The chapter concludes with summary remarks on likely future patterns.

Mapping the Landscape

This section commences with some quantitative estimates, to map the scale of shadow education. It then remarks on aspects of intensity and demographic variations, and on subjects and modes for shadow education.

The scale of shadow education

Unlike schooling, which is now statistically well documented, information on shadow education is patchy. Nevertheless, some sort of picture can be assembled from local and national studies as presented in Table 1 and related literature. Within Asia and the Pacific, four main sub-regional groups may be identified:

- East Asia, including Japan, Hong Kong, South Korea and Taiwan, has long traditions of shadow education and is the world region in which it has been most visible. Patterns can be linked to Confucian traditions that value educational achievement, but as in other parts of the world they also reflect social competition. Mainland China started later than other parts of the region because until the 1980s its government strictly prohibited private enterprise, Shadow education expanded rapidly from the 1990s until a 2021 government crackdown.
- South Asia, including Bangladesh, India, Pakistan and Sri Lanka, also has long traditions of private tutoring. Indeed official remarks about the phenomenon go back to the 1940s (Ceylon, 1943). As elsewhere, tutoring is driven by social competition but also by teachers desiring to increase their incomes. Similar patterns are evident in parts of Southeast Asia, including Cambodia, Myanmar and Vietnam.
- In Northern, Central and Western Asia, including Mongolia and the former Soviet states, shadow education has similarly expanded to become a major activity. One major force was the collapse in purchasing power of teachers' salaries after the demise of the Soviet Union. Teachers remaining in the teaching profession had to find supplementary earnings to support their families, and tutoring was an obvious route. Society understood the pressures on teachers, and largely accepted the phenomenon. Since that era the purchasing power of teachers' salaries has risen in many of these countries, but the provision of tutoring has remained embedded.
- The *South Pacific* is culturally very different but has also seen the emergence of the phenomenon. In Australia, trends have to some extent been led by Asian immigrants who have then increased the competitive pressures on others (Aris 2017; Doherty and Dooley 2018; Sriprakash et al. 2016). Less research has focused on this theme in New Zealand, though the Programme for International Student Assessment (PISA) operated under the auspices of the Organisation for Economic Co-operation and Development (OECD) has shown enrolment rates comparable to those in Australia. The phenomenon

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Concerning the PISA data reported in Table 1, the specific questions should be noted. The 2012 PISA survey asked students: "Thinking about all school subjects: on average, how many hours do you spend each week on the following? ... c) Work with a personal tutor (whether paid or not); d) Attend out of school classes organized by a commercial company and paid for by your parents". Thus Option c) explicitly allowed for fee-free tutoring.

has not to date received significant research attention in Papua New Guinea or the smaller countries such as Fiji, Solomon Islands, Tonga and Vanuatu.

Table 1: Selected Cross-national Indicators of Shadow Education

Location	Patterns
Australia	PISA data collected from 15-year-olds in 2012 suggested enrolment rates of 22.3% (but including some fee-free tutoring) (Entrich 2021: 451).
Bangladesh	National household survey data showed 2010 private tutoring enrolment rates of 39.6% among children aged 6-10, 63.8% among ones aged 11-15, and 73.8% among ones aged 16-18 (Dahal and Nguyen 2014: 14).
Cambodia	Marshall and Fukao (2019), reporting on data from a nationally representative dataset, indicated that in 2016 73% of Grade 8 students had received private tutoring. A related dataset for 2017 showed participation rates of 20.1% for primary school students, 57.0% for lower-secondary students, and 74.7% for upper-secondary students.
China (Mainland)	A household survey was conducted in 2017 by the China Institute for Educational Finance Research (Wei 2020). Nationwide, 33.4% of primary, 43.7% of lower-secondary, and 48.2% of upper-secondary students had received private tutoring. Participation rates were highest in the north east (60.8%), followed by the east (38.1%), centre (38.0%), and west (30.5%). Participation rates of urban students were twice those of rural students. However, enrolments were radically cut in 2021 by fierce national-government policies seeking 'burden reduction' for school children. Many tutorial centres were closed, though some moved underground (Ni 2021; Zuo 2021)
Hong Kong (China)	Bray et al. (2014) surveyed 967 Grade 9 students and 657 Grade 12 students in 16 secondary schools in 2010/11. They found that 53.8% of Grade 9 students and 71.8% of Grade 12 students had received tutoring during the past year. Concerning gender, 65.6% of surveyed female students received tutoring compared with only 56.8% of males.
India	National survey data collected in 2017/18 indicated enrolment rates of 16.4% in primary, 21.9% in upper primary/middle, 30.2% in secondary, and 27.5% in upper-secondary schooling (India 2020: 113). Wide variations were evident in different states. At the top end across all grades was West Bengal at 75.2%, followed by Odisha at 43.5% (p.185). At the bottom end were Telegana (2.3%) and Chhatisgarh (4.3%). Yet even in Chhatisgarh, rates were 14.9% in urban areas compared with 2.0% in rural areas.
Japan	A 2017 survey found that 33.7% of elementary students, 51.9% of lower-secondary students and 29.3% of upper-secondary students attended tutorial enterprises called <i>juku</i> (Kimura 2018).
Kazakhstan	Kalikova and Rakhimzhanova (2009) asked 1,004 first-year university students about their experiences in the last year of secondary schooling and found that 59.9% of students had received tutoring (private lessons, preparatory courses, or both). PISA data collected from 15-year-olds in 2012 suggested enrolment rates of 71.2% (but including some fee-free tutoring) (Entrich 2021: 452).
Kyrgyzstan	Bagdasarova and Ivanov (2009) asked 1,100 first-year university students about their experiences in the last year of secondary schooling. They found that 52.5% of students had received tutoring (private lessons, preparatory courses, or both).
Malaysia	A 2004/05 government national survey found that 20.1% of households had expenditures on private tutoring (Kenayathulla 2013: 632).
Myanmar	Bray et al. (2020) surveyed 801 Grade 9 and 836 Grade 11 students from eight schools (five urban and three rural) in Yangon Region, asking about their participation in private tutoring during the past 12 months. The overall participation rate was 84.9%, with little variation between genders, grades and locations.
Nepal	National household survey data showed 2010 private tutoring enrolment rates of 16.1% among children aged 6-10, 26.1% among ones aged 11-15, and 43.2% among ones aged 16-18 (Dahal and Nguyen 2014: 14).
New Zealand	PISA data collected from 15-year-olds in 2012 suggested enrolment rates of 23.0% (but including some fee-free tutoring) (Entrich 2021: 453).
Pakistan	The Annual Status of Education Report (ASER) collects data separately in rural and urban areas. In 2019, 6% of rural government-school children were receiving private tutoring, and 22% of private-school children were doing so (ASER 2020: 69). The highest rates were in Grade 10, at 11% and 28%. In urban areas in 2018, 25% of government-school children were receiving private tutoring,

	and 45% of private-school children were doing so (ASER 2019: 37). Again the highest rates were in Grade 10, at 42% and 59%; but even in Grade 1 they were 21% and 13%.
South Korea	In 2019 57.9% of elementary-school students were receiving tutoring of some kind (one-on-one, group, via internet, at home, and in private institutes). The figures for lower-secondary and upper-secondary school students were 61.8% and 49.7% (Korean Statistical Information Service 2020).
Sri Lanka	Pallegedara's (2018: 1287) analysis of Household Income and Expenditure Survey (HIES) data found that households with expenditures on private tutoring grew from 14% in 1990/91 to 54% in 2012/13. The percentage for rural families rose from 9% to 51%, and that for urban families from 23% to 64%. Abayasekara (2018: 2), drawing on 2016 HIES data, stated that 65% of urban households and 62% of rural ones had invested in private tutoring.

Intensity and demographic variations

Table 1 indicates the proportions of school populations that received private tutoring, but does not indicate the intensity of their studies. Official statistics on school enrolment rates imply that pupils attend school for the bulk of the school year. In practice, that assumption may be erroneous; but it is more likely to be valid for school enrolments than for supplementary tutoring. Some students receive tutoring throughout the year, while others do so mainly in the period building up to examinations. For example, among the students in Kyrgyzstan surveyed by Bagdasarova and Ivanov (2009: 132), 40.5% received private tutoring lessons regularly throughout the year, 20.0% received them occasionally throughout the year, 19.1% received them regularly in the final semester, 8.0% received them occasionally in the final semester, and 12.3% did so just before examinations. Variations in intensity were also evident in the number of hours per week. The majority of students (57.1%) spent one or two hours per week with a private tutor, while some spent less and others spent more.

Casual observers commonly assume that secondary school students receive tutoring more intensively than primary students. There is some validity in this statement as a generalisation, as supported for example by Pakistan data (ASER 2020). However, much depends on selection processes at various stages in the education system. In Singapore, the Primary School Leaving Examination is a major watershed, since it is the principal determinant of the secondary school streams that students will enter. For that reason, the intensity of primary school tutoring in Singapore rivals that of secondary schooling (Tan 2019). As reported in Table 1, elementary students in South Korea also had higher participation rates than upper-secondary students. This may reflect parental desires to secure a strong foundation, but may also reflect the functions of tutoring as a child-minding agent.

One might expect pupils in private schools to receive less shadow education than their counterparts in public schools, on the grounds that the private schools are already more closely attuned to their clients and are already charging fees to permit them to meet those clients' needs. This is indeed the case in some countries. Nath (2011) presented Bangladesh data indicating that 38% of pupils in government primary schools received private tutoring compared with 12% in non-government schools. However, in Pakistan private-school students receive more tutoring than their public-school counterparts (ASER 2020). One explanation is that parents already have disposable income for private schooling, and have already demonstrated their willingness to use the market to secure an educational edge for their children.

Another dimension concerns location. In general, shadow education participation rates are greater in urban areas than in rural areas, and greater in larger cities than in smaller ones. This has been demonstrated for example in Bangladesh, China and Nepal (Dahal and Nguyen 2014; Zhang and Bray 2021). However, gaps narrow with expansion of tutoring, as shown for example in Sri Lanka (Table 1).

A further source of variation may be gender. Some studies have indicated that when parents have to make decisions on whether to invest in the tutoring of boys or girls, they are more likely to choose the former on the grounds that boys are more likely to seek paid employment that will require educational qualifications. Focusing on India and Pakistan, Aslam and Atherton (2014: 150) showed not only higher enrolment rates but also higher expenditures on males compared with females. However, the pattern is not universal. In Kyrgyzstan, Bagdasarova and Ivanov (2009: 134-135) found that females comprised 65.4% of enrolments in one-to-one and small group tutoring and 67.9% in preparatory courses.

On another variable, some societies show significant racial or ethnic variations. That has been the thrust of much Australian research on Asian migrants (Aris 2017; Sriprakash et al. 2016). In a different context, Jelani and Tan (2012) looked at patterns of private tutoring received by primary school students in Penang, Malaysia. They found that students of Chinese ethnicity were more likely to receive tutoring, observing that such students formed 38% of the population but 46% of students in their sample. By contrast, Malays formed 51% of the population but only 44% of their sample. However, variations by race and ethnicity may reflect economic factors as well as cultural ones.

Subjects and modes

The subjects most in demand for private supplementary tutoring are those that are most necessary for advancement in the education systems. This usually includes mathematics and English. At upper-secondary levels, science students commonly receive more tutoring than arts students.

In addition to straightforward repetition of school subjects may be elaborations and supplements of various kinds. In order to attract clients, private tutors differentiate themselves from the school sector through their teaching approaches and content. They may offer personalised instruction and a tailored curriculum on a one-to-one basis. Since one-to-one tutoring is costly for the client, many tutors also provide for small groups at lower unit costs (but usually greater overall revenue per hour for the tutors). For remedial tutoring they are likely to stay within the confines of the school curriculum, but for tutoring they expand the curriculum with additional materials.

Such tutoring may also alter the sequence of instruction. Thus, although the metaphor of the shadow implies that the private tutoring follows the regular system, some tutors offer 'learning in advance'. This has become a significant phenomenon in South Korea, where some *hagwons* teach students for two months during the vacation before the beginning of the academic year, and during the school year also keep ahead of the school curriculum (Dawson 2010). This creates difficulties for the school teachers, who find that some students have already learned the materials while others have not.

In some societies, alongside one-to-one and small-group tutoring are the very different formats provided by "star" tutors, who are able to pack lecture theatres and operate with overflow video screens. These are a major phenomenon in Hong Kong, where companies advertise personalities on television, in newspapers, and on the backs of buses (Eng 2019; Koh 2016). Some students just attend the lectures and/or video-recordings of the lectures, while others purchase add-ons such as personalised interaction with the star tutor or a tutor's aide via Facebook, e-mail, or other modes. In Sri Lanka, 'hall tuition classes' may even serve 1,000 students at a time Pallegedara (2018: 1281). Classes are usually held on weekends but sometimes on weekdays, and since they are offered only in large towns some students from rural areas travel long distances to attend.

The internet is also increasingly used for other forms of tutoring at a distance. Such tutoring may be conducted live, through self-service lessons, or in mixed mode. It was much boosted by the Covid-19 pandemic that hit the world in 2020 and prohibited both face-to-face schooling and, in many jurisdictions, face-to-face tutoring (Williamson and Hogan 2020; Panda and Behera 2021; Piao and Hwang 2021). Online tutoring is not restricted by geographic boundaries: the tutors and their clients may be in the same city or they may be in different countries or continents.

Demand and Supply

This section commences by reviewing major drivers of demand for tutoring. It particularly addresses transition points in education systems, school quality, and the combination of smaller families and increased wealth. The section then turns to the supply of tutoring, again noting that providers of tutoring may range from informal operations involving single individuals to large multinational companies.

Drivers of demand

The main driver of demand for supplementary tutoring is awareness that investment in education can generate strong returns from performance in key examinations and entrance to high-status secondary schools and universities. Few parents have read the empirical literature on rates of return to education (e.g. Psacharopoulos and Patrinos 2018); but most have strong and to some extent valid impressions that the longer a person can stay in the education system, and the better the quality of that education, the greater the prospects for enhanced lifetime earnings and standard of living. By corollary, families know that poor performance in school and on examinations is related to weaker employment opportunities and lower standards of living.

Although all education systems in Asia and the Pacific have greatly expanded in recent decades, not all countries have universal lower-secondary education and even fewer have universal upper-secondary education. At the transition points between levels, decisions must be made by schools and higher-level administrators about who will be permitted to proceed in the education systems and who will be pushed out. Families wanting to avoid push-out may invest in private supplementary tutoring to secure an edge in the competition.

Competition may also be strong in systems that do have universal lower- and upper-secondary education. Singapore, for example, has a highly stratified system of secondary schooling (Tan 2019). The implications of each track for future careers are very significant, and since the Primary School Leaving Examination is a major determinant of the tracks in which students will find themselves, many parents invest in supplementary tutoring at the primary level.

In all systems, moreover, a major push-out occurs at the end of upper-secondary schooling. Some systems have great pressure at that stage because few post-secondary places are available and the gate is therefore narrow. Observers commonly assume that if the gate is widened through expansion of post-secondary intakes, then pressures for shadow education will ease. This does indeed happen in some systems, but not universally. Instead, the question for families changes from 'post-secondary place or no post-secondary place' to 'which post-secondary place'. If post-secondary institutions and programmes remain highly stratified, with some offering much greater rewards than others, then demand for shadow education during secondary schooling is likely to remain as intense as before. Indeed, patterns in Hong Kong show that expansion of post-secondary education can even increase demand for supplementary tutoring. In the 1980s, when local post-secondary places were available for only about 4% of the cohort, most families assumed that post-secondary education was out of reach. Twenty years later post-secondary education had expanded to serve 60% of the cohort, and families therefore not only saw it as within reach but also sought the more desirable parts of the system that could be obtained with the help of supplementary tutoring (Zhan et al. 2013).

Perceptions of inadequacies in mainstream schooling are another major driver of private tutoring (Joshi 2021: 1136). In Sri Lanka, 53% of 2,378 Grade 10 students, when asked why they sought private tutoring, stated that they had not received sufficient exercises in school and that the full syllabus content had not been covered. Similar perspectives are also evident elsewhere in South Asia. In Bangladesh the point was made forcefully by one student reported by Hamid et al. (2009: 298): "Private tutoring is needed because of the failure of school in English teaching. If English was taught properly at school, there would not be any need to take private lessons." In some cases, this is not so much because of poor quality teaching but because of no teaching at all. In India's West Bengal, Sen (2010) noted that teachers often fail to come to school, since they do not perceive a likelihood of sanction for such behaviour. Such teachers are more likely to attend their tutoring classes, however, because there is a direct correlation between effort and income. When mainstream schools are unprepared to give even hard-working and talented students the opportunity of learning the relevant materials, families invest in private tutoring not just to gain an extra edge but to cover basic skills and concepts.

In some settings, class size is also an issue. Even in wealthy parts of Asia, classes commonly have over 30 students, and in poorer parts many classes are much larger. While the educational consequences of class size are controversial (see e.g. Hanushek and Woessmann 2017), parents usually perceive smaller classes as better. Small classes may allow teachers to engage in more interactive pedagogy, giving students more opportunity to ask questions and gain clarifications. If mainstream classes remain large, families may decide that tutoring is the only way to secure individualised instruction. However, large classes are also found in

private tutoring centres: the classes taught by master tutors in Sri Lanka and by star tutors in Hong Kong commonly have more than 100 students. Much therefore depends on perceptions by the clients of what they will be able to gain from whom and in what circumstances.

A further factor concerns family size, which has much decreased in most parts of Asia though not in South Pacific countries such as Papua New Guinea. Dawson (2010: 17) presented findings from a survey of 40,883 parents that investigated reasons for the "heating up" of *juku* attendance in Japan. Over one-third (38.6%) of parents indicated that the increasing number of one-child families was a factor. In China, the size of families has been restricted by regulation. The one-child policy launched in 1979 led to the phenomenon of the 'priceless child' on whom aspirations and the rapidly-expanding economic resources were concentrated (Liu 2016). Adjustments in the mid-1980s permitted rural parents a second child if the first was female, and in 2013 two children were permitted in all families in which at least one parent was an only child. Then in 2015 all families were allowed two children, with the number raised to three in 2021. Yet despite these adjustments, many families continued with only one child – and educational expenses were among the factors underlying such family decisions (Liu and Bray 2020).

Diversity of supply

Private tutoring is supplied by a diverse range of providers, from neighbours and classroom teachers to global franchises and web-based firms. Due partly to its low entry barriers, the private tutoring industry is a major provider of employment. Informal suppliers, such as housewives and university students, are commonly untrained, which raises questions about quality. By contrast, classroom teachers are more likely to have training, at least in school-operated teaching methods; but companies may again prioritise revenues and personalities over training.

In many countries, the pattern of teachers supplementing their incomes by tutoring students after school hours is more a necessity than a choice – at least as perceived by the teachers themselves – since teachers' salaries hover close to the poverty line. This has been observed for example in Cambodia (Marshall and Fukao 2019) and Myanmar (Bray et al. 2020). The situation creates a challenge for governments, since any preaching against teachers providing tutoring loses considerable force when teachers do not receive adequate official salaries.

Concerning commercial approaches, the franchise model of tutoring has taken hold in several countries. Kumon, for example, was founded in 1954 in Japan and by 2021 was operating through franchises in nearly 50 countries including Australia, India, Indonesia, Malaysia, New Zealand, Philippines, Singapore, South Korea, Sri Lanka, Thailand, and Vietnam (Kumon 2021). Kip McGrath, which was founded in 1976 in Australia, had franchises in that country, New Zealand, and eight countries of Africa, the Middle East and Europe (Kip McGrath 2021).² Other companies may be mainly domestic in focus but still operate as chainstores with multiple locations. Patterns in China are particularly noteworthy since the huge domestic market at

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² At earlier points in time, the company had Asian operations in Indonesia and Singapore, but they appeared to have closed.

one stage also attracted global venture capital. By 2019, 20 Chinese tutoring companies were listed on stock markets in Mainland China, Hong Kong and the USA (Feng 2021: 94).³

Impact and Implications

Shadow education has many forms of impact, and far-reaching implications. The most obvious, with which this section commences, is in academic achievement. Tutoring may also have an impact on the efficiency of education systems; and it has considerable implications for inequalities and perhaps also for social cohesion.

Academic achievement

Many people assume that shadow education delivers positive results in academic achievement, reasoning that otherwise families would not invest in it. That assumption may not always be sound: much depends on the quality and forms of the tutoring and on the motivations and abilities of the learners. Some tutors have excellent skills and conducive infrastructures but work with students who are unmotivated or not appropriately matched in academic level. By corollary, some students are motivated and capable, but their tutors lack content knowledge and pedagogical skills. Families may continue to invest in tutoring even when learning gains are elusive. When students do not make progress, tutors commonly blame the students rather than themselves, and families may accept this diagnosis and continue to invest. Alternatively, students may continue to seek tutoring chiefly because most of their classmates seem to be doing so.

Research on this theme encounters difficulties arising from the many types of tutoring and the overlapping variables that also shape learning (Zhang and Bray 2020). Overall, it shows mixed findings on the impact of private tutoring on academic achievement (Cole 2017; Kang and Park 2021; Liao and Huang 2018). Large numerical datasets permit statistical modelling, but they do not always demonstrate clear implications of different types and durations of provision. Tutoring delivered by teachers in large classes to the children for whom they are already responsible, and perhaps even in the same classrooms, is obviously different from one-to-one tutoring delivered by highly-paid professionals in specially-equipped learning centres. Further variations arise with the large classes taught by star tutors, and with internet tutoring; and the experiences of lower-primary students may be very different from those of upper-secondary ones.

Whatever the research evidence, however, most families believe that tutoring does make a difference – and that even when learning gains are disappointing, the solutions may be either to try harder with the existing tutors or to seek different tutors. For many families, the question is not so much whether they should purchase tutoring, but how to purchase tutoring that best fits the learning needs and temperaments of their children. Certainly there is enough evidence to indicate that tutoring *can* make improve learning, even if it does not always do so.

³ However, the 2021 regulations (China 2021; Zuo 2021) radically reshaped the marketplace and led to scaling back and even closure of significant listed companies in China (Zhang 2021).

Broader skills and values

Education, of course, is about more than just academic achievement. It includes physical development through sports; aesthetic development through music and arts; and social development through relationships with peers and other members of society at local, national, and even global levels. The expansion of academic supplementary tutoring is commonly at the expense of these other domains. Especially at the level of upper-secondary schooling, students commonly drop sports, music, and arts altogether, and have little time for focused attention to interpersonal matters.

More positively, private tutoring can develop children's self-esteem and sense of achievement. Slow learners may be enabled to keep up with their peers, and fast learners can stretch their learning further. Certain types of tutoring may provide a more rounded education; and tutoring may promote study habits that stress the importance of learning and self-discipline. Japan's *juku* have been part of a social fabric that has stressed diligence and learning, and in turn has been a major ingredient in the country's economic success (Entrich 2018).

On the other side are concerns in some countries about corruption. In Vietnam, Vu et al. (2011) noted that teachers who provided extra private classes for the school-pupils for whom they were already responsible commonly disclosed examination questions in advance during those classes. The report pointed out (p.20) that extra private classes "clearly corrupt the fair and true appraisal of students' performance".

Other parts of Asia have stronger ethical standards, and such types of corruption are rarely witnessed in Hong Kong, Japan, South Korea, and Singapore. However, even in these societies parents and others worry about some of the values promoted by tutoring. For example, in Hong Kong one way through which the star tutors attract clients is by using vocabulary in the classroom that appeals to teenagers but would not be considered appropriate in schools (Koh 2016).

Efficiencies and inefficiencies

A fundamental principle for many people, especially economists, is that resources should be used with maximum efficiency to achieve designated goals. The question then arising is whether the expansion of shadow education promotes or diminishes efficiency in the use of resources.

In general, it must be admitted, mainstream school systems are themselves inefficient machines for achieving their goals. School systems are often shaped more by historical circumstances, economic conditions, and social norms than by deliberate planning. Over the decades and centuries, many policy makers have sought to change various components of these models. They have had some success, though in general school systems have demonstrated strong resilience.

It might be assumed that private tutoring is more efficient than public schooling. Operating in a marketplace, tutors run businesses that would seem to demand careful use of resources and that serve clients who presumably want value for money. If the managers do not attend to these matters, then their businesses are likely to collapse. Some large tutoring companies even have research departments to identify cost-effective approaches to teaching and learning through computer software and other means. Smaller companies

cannot undertake such research, but they must still heed the efficiency of operation; and even self-employed tutors working on an individual basis have to budget their time and other inputs carefully.

However, even if internal efficiency in a business sense may be assumed, wider efficiency might be less easily demonstrated. One problem, as indicated above, is that it cannot be assumed that private tutoring always results in learning gains. For several reasons, the absence of a consistent positive relationship does not always reduce demand for tutoring. First, few clients have investigated the empirical evidence and therefore have to operate on the basis of assumptions and advertisements rather than clear evidence; second, clients are pressed to achieve higher grades and believe that success is possible; and third, tutoring establishments, like schools, may be adept at taking credit for academic success while avoiding accountability for academic failure. In this respect, many tutoring enterprises continue to operate despite unsatisfactory performance from a simple input-output perspective.

Nevertheless, complementarities may also be found. Nazeer (2006) conducted a qualitative study of the learning styles of nine students in the Maldives. All the students received tutoring, and Nazeer noted that teachers in schools generally used direct explanation methods while tutors in tutorial centres gave students opportunities to discuss concepts. When Nazeer asked students what happened when they did not understand something during lessons at school, five of them indicated that they sought help from their tutors rather than their teachers (p.159). One said:

Almost all students in my class go to private tuition. So if we don't understand something in the school we ask our tutor at night.

In such instances, it can be argued that the tutoring complements schooling by increasing the overall effectiveness of learning. The teachers asserted that they had no time for individual attention during 35-minute periods and during the crowded school day. However, the existence of private tutoring to some extent permitted the teachers to abdicate from domains that were arguably part of their responsibility within the normal school day, and required an overall increase in time for teaching and learning which is not the hallmark of an education system that is operating efficiently.

Moreover, in some settings inefficiencies are expanded further when students pay more attention to tutors for whom they or their parents are directly paying money than to school teachers, who seem to be free of charge and who may be taken for granted. This is part of the hidden curriculum of tutoring, which can lead to an undervaluing of school systems (Bray et al. 2018). Furthermore, students who work long hours at tutoring centres may be short of energy for daytime schooling.

From the perspective of inefficiencies, even more problematic may be circumstances in which regular teachers also provide private tutoring. Such teachers may be tired, and may reserve their energies for the private classes after school. Particular problems may arise when the teachers tutor their existing students. In Nepal, Jayachandran (2014: 191) observed that:

teachers sometimes refrain from teaching some of the curriculum during school in order to generate demand for their fee-generating tutoring classes. Teachers say, in not so many words or sometimes

even explicitly, "You need to know X, Y, and Z to pass the exam. We'll cover X and Y in class. If you want to learn Z, come to tutoring".

With reference to Cambodia, Dawson (2009) described such practices as among the "the tricks of the teacher". In such cases, the shadow education system leads to inefficiencies in the school system. This is not only a matter of teachers operating in less than optimal ways; it is also a matter of the children's time being used inefficiently. In such circumstances, children may be deprived of other constructive opportunities to use their time, including for leisure and rest.

While in some countries students who are receiving much tutoring are tired and therefore sleep in school classrooms, in other countries they may stop going to school altogether. With reference to Azerbaijan, Silova and Kazimzade (2006: 128) reported that:

numerous interviews with school directors, teachers, and students reveal that school nonattendance increases shortly before the end of the school year (especially in the last grade of secondary school), when students begin skipping classes to attend private tutoring lessons during school hours. Some students pay bribes to their teachers or school administrators to be excused from school and instead attend private tutoring lessons.

Similar observations have been made in India (Bhorkar and Bray 2018).

Inequalities and social cohesion

A recurrent concern about shadow education is its impact on social inequalities. Shadow education can be a vehicle for disadvantaged students with determination to reach higher strata, as exemplified by Yung (2020); yet self-evidently more prosperous families are able to purchase greater quantities and better qualities of supplementary tutoring than can less prosperous families. Diversification within the industry has made forms of tutoring available at lower cost, e.g., through large classes provided by companies. However, some families cannot afford even the less expensive forms of tutoring, or cannot access them because they live in remote locations.

These patterns may be viewed in the context of official policies on fee-free education that are espoused in international conventions and in the constitutions of such countries as Azerbaijan, Cambodia, Japan, and Pakistan. It might be argued that shadow education is not covered by such statements because it exists in the private supplementary sector rather than the mainstream. However, families have increasingly felt that supplementary tutoring has become essential.

In some societies, perceptions of social inequalities have led to major unrest, which has had economic as well as political consequences. The decades of civil war in Sri Lanka may come to mind, as might various incidents in India, Tajikistan, and many other locations. In this connection, it is useful to return to some of the remarks made above under the heading of demographic variations. Concerning Sri Lanka, Pallegedara's (2011: 24) review of household expenditure data showed that Sinhalese students, who comprised 70% of the total population, were much more likely to invest in private tutoring than Tamil students who comprised 20%.

Beginning with the 1995/96 data, Pallegedara reported that only 17% of Tamil households spent money on private tutoring compared with 24% of Sinhalese households. By 2006/07 the proportions were 59% among Tamils and 65% among Sinhalese – i.e. a great increase in both groups and a reduction of gaps, but with differences nevertheless remaining.

In contrast to Sri Lanka, where the ethnic majorities receive more tutoring than the minorities, in Malaysia higher rates of tutoring are received by minorities. Jelani and Tan (2012) found that students of Chinese ethnicity in Penang formed 38% of the population but 46% of students in their sample, and that Malays formed 51% of the population but only 44% of their sample. Similarly, Tan (2011: 105) found that in his sample of schools in Kuala Lumpur and Selangor, 66% of Chinese students in Grades 1-3 had received tutoring compared with 46% of Indian students and 28% of Malay students.

Regulations for shadow education

Overall, regulations for shadow education lag far behind those for schooling. Many governments sidestep the issues with *laissez faire* approaches, while others have modest regulations, and a few have strong approaches. The two main foci of regulations where they exist are tutorial companies and teachers who provide extra private tutoring. No governments in the region (or indeed beyond) have significant regulations on tutoring provided by university students or other informal suppliers, chiefly because such work is difficult to monitor and control.

Concerning companies, in some countries the basic regulations remain only at the general level supervised by the Ministry of Commerce or equivalent, and focus on such matters as accounting, contracts, advertising, fire escapes, and toilets (Bray and Kwo 2014; Zhang 2021). Governments in other countries have issued regulations focusing on educational matters including class size, tutors' qualifications, and curriculum. The South Korean government, for example, has set a ceiling on the fees that can be charged by tutorial centres, with a Call Centre to which parents can complain if overcharged. The government has also set a curfew on hours of operation (Choi and Choi 2016). However, the enactment of such regulations requires both strong government machinery and political consensus, the combination of which is not available in all countries of the region.

Turning to teachers, the model employed in Bhutan is at one end of the spectrum. A regulation issued in 2001 prohibited all teachers in public schools from providing private supplementary tutoring, and the following year was extended to teachers in private schools (Bray and Kwo 2014: 45). Similar regulations for public schools were at one stage issued in Bangladesh, but were adjusted in 2012 to allow teachers to tutor up to 10 students per day in their own residences provided those students were not from their own schools (Independent 2012). In contrast, Malaysian regulations have allowed teachers to tutor students from their own schools and even from their own classes provided they meet various requirements (Kwo and Bray 2014: 47; Malaysia 2006, Section 4). In all settings, however, a danger arises of regulations existing only on paper if the parents and other stakeholders do not see a justification for such restrictions. Thus, in such countries as Cambodia, Myanmar and India the provision of supplementary tutoring by serving teachers remains

widespread despite the existence of restrictions. In part this is because parents continue to press teachers for support in the competitive environment; and the governments lack both the resources and the political consensus to take stringent approaches.

Nevertheless, at one extreme are the tough regulations issued by the Chinese authorities (China 2021). These regulations, as mentioned, sought to reduce the burden on students from external study on top of schooling; and a less explicit goal was restricting the outflow of resources from Chinese families to foreign capitalists trading on external stock exchanges. In the short run the regulations had a far-reaching impact with closure of many tutorial institutions. Some parents were glad to have the reduced pressures, but others felt deprived of an avenue for strengthening their children's capacities in the competitive environment. In this respect, parallels with the prohibition of private tutoring in South Korea in 1980 seemed pertinent (Bray 2009: 50-53; Lee and Jang 2010). In South Korea at that time the prohibition drove shadow education underground, raising prices and arguably making some dimensions of the phenomenon even more problematic by taking it beyond public scrutiny. The Korean government was forced by stages to relax the prohibition, and by the 2000s the scale of shadow education far exceeded that in the pre-prohibition era. The Chinese regulations similarly addressed just the supply of shadow education rather than the demand, raising a strong possibility that the path in China may imitate that in South Korea.

Conclusions

Shadow education has a long history in parts of Asia, and is now also increasingly visible in the Pacific. Reference was made above to a 1943 official comment on the phenomenon in Ceylon (now Sri Lanka), and government concerns in South Korea go back to the 1950s (Lee and Jang 2010; Seth 2002). However, at least until recently private tutoring has been ignored by policy makers in most parts of the region. Even in Japan, where *juku* have long been known to play a major role in the lives of young people, the education-sector authorities have historically preferred a laissez-faire stance (Zhang and Yamato 2018).

Shadow education can no longer be ignored. It has grown significantly and will continue both to grow and to evolve, with far-reaching implications. Chinese patterns following the 2021 regulations seemed to be an exception, but even in that country the sector is likely to continue to thrive underground and to rebound when policy circumstances permit. While some dimensions of the expansion of shadow education might be welcomed as ways to extend the provision of education and build human capital, the phenomenon is socially stratifying yet has a backwash on schooling. Shadow education is much less about remedial help for students to keep up with their peers, and much more about competition and creation of differentials. It may also have corrupting dimensions.

In remarks about the demand for tutoring, this chapter has highlighted the roles of selection mechanisms at transition points in education systems, cultural factors, parental perceptions of qualitative shortcomings in regular schools, and the combination of increased wealth and smaller families. These determinants of demand have operated within a context of overall expansion of education systems. As countries have progressed toward, and achieved, universal primary education, they have experienced pressure

to expand lower-secondary education. And as they have achieved expansion of lower-secondary education, they have experienced pressure to expand upper-secondary and post-secondary education. Thus, enrolment rates at all levels have greatly risen during the last two decades. With expansion of the mainstream has come expansion of the shadow.

Another broad trend has been the increased acceptability of marketisation in the education sector. Many countries have socialist legacies, whether as part of the Soviet Union or as independent nations such as China, Laos, Mongolia, and Vietnam. Before the 1990s, in these countries the operation of free markets in any sector – and perhaps especially in education – was very limited. Economic and political reforms have permitted and encouraged the delivery of education through private channels alongside public ones. Marketisation has also become increasingly evident in such countries as India, Malaysia, and Singapore, which have always had capitalist systems but in which education has been seen as primarily a government responsibility. Thus the expansion of shadow education reflects wider changes in the roles of the state.

The expansion of shadow education may also be linked to the forces of globalisation and increasing competition. Families have always invested in education in order to maintain or advance their social and economic positions; but whereas in earlier decades social and economic positioning was mainly in the context of local and national conditions, now they are shaped by the forces of globalisation that are accompanied by mobility of capital and of labour. Education is widely seen as a core instrument to 'win' in the competitive environment; and, by corollary, lack of education is widely seen as a factor that limits career and other opportunities.

Within this broad picture, different locations have different emphases. In almost all countries, urban areas have stronger shadow education enrolments than rural areas; and around Asia and the Pacific is diversity among and within geographic sub-regions. Part of this diversity reflects the providers and forms of shadow education. In Cambodia most tutoring is provided by teachers, whereas in Thailand it is provided by individuals, small companies, or large companies. In Mongolia and the Maldives most tutoring is labour-intensive, while entrepreneurs in Japan and South Korea make increasing use of computers and other forms of technology.

These observations raise questions about the roles of government. In general, governments around the region have been slow to address the phenomenon, feeling that their chief responsibility is for mainstream schooling and that families take their own decisions on private supplements. Nevertheless, the topic has entered government agendas across the region (Bray and Kwo 2014) and especially in China (Zhang 2019, 2021). This chapter has stressed the diversity of circumstances because it exposes the complexity of the work of policy makers, but some broad lines for action are clear. The first is to recognise the existence, nature, and implications of shadow education. An overall message is that shadow education needs much more attention both by educators in general and by policy makers. The theme should be taken more fully 'out of the shadows' for discussion at all levels of government and society, including individual schools and families. The domain is complex, but appropriate ways forward will be found much more easily if the sector is actively discussed rather than ignored.

Note: Parts of this chapter draw on and update material previously co-published by the Asian Development Bank and the Comparative Education Research Centre at the University of Hong Kong (Bray and Lykins 2012).

References

- Abayasekara, A. (2018). Shadow education in Sri Lanka. Colombo: Institute of Policy Studies. https://www.ips.lk/wp-content/uploads/2018/04/PPT_24April.pdf, accessed 28 November 2021.
- ASER (Annual Status of Education Report) (2019). ASER Report 2018: National (Urban). Lahore: ASER.
- ASER (Annual Status of Education Report) (2020). ASER Report 2019: National (Rural). Lahore: ASER.
- Aris, S. (2017) Indian tigers: What high school selection by parents pursing academic performance reveals about class, culture and migration, *Journal of Ethnic and Migration Studies*, 43 (14): 2440-2455.
- Aslam, M. and Atherton, P. (2014). The shadow education sector in India and Pakistan: Opening Pandora's box. In I. Macpherson, S. Robertson and G. Walford (Eds.), *Education, privatisation and social justice:*Case studies from Africa, South Asia and South East Asia (pp.137-158). Oxford: Symposium.
- Aurini, J., Davies, S. and Dierkes, J. (Eds.) (2013). Out of the shadows: The global intensification of supplementary education. Bingley: Emerald.
- Bagdasarova, N. and Ivanov, A. (2009). Private tutoring in Kyrgyzstan. In I. Silova (Ed.), *Private supplementary tutoring in Central Asia: New opportunities and burdens* (pp.119-142). Paris: UNESCO International Institute for Educational Planning (IIEP).
- Bhorkar, S. and Bray, M. (2018). The expansion and roles of private tutoring in India: From supplementation to supplantation. *International Journal of Educational Development*, 62: 148-156.
- Bray, M. (1999). *The shadow education system: Private tutoring and its implications for planners*. Paris, France: UNESCO International Institute for Educational Planning (IIEP), Paris.
- Bray, M. (2009). *Confronting the shadow education system: What government policies for what private tutoring?*. Paris, France: UNESCO International Institute for Educational Planning (IIEP).
- Bray, M. (2021a). *Shadow education in Africa: Private supplementary tutoring and its policy implications*. Hong Kong: Comparative Education Research Centre, The University of Hong Kong. https://cerc.edu.hku.hk/books/shadow-education-in-africa-private-supplementary-tutoring-and-its-policy-implications/
- Bray, M. (2021b). Shadow education in Europe: Growing prevalence, underlying forces, and policy implications. *ECNU Review of Education* [East China Normal University], *4* (3): 442-475. http://www.roe.ecnu.edu.cn/f9/1e/c12911a391454/page.htm
- Bray, M. and Hajar, A. (2022). *Shadow education in the Middle East: Private supplementary tutoring and its policy implications*. London: Routledge.
- Bray, M.; Kobakhidze, M.N. and Kwo, O. (2020). *Shadow Education in Myanmar: Private Supplementary Tutoring and its Policy Implications*. Paris: UNESCO and Hong Kong: Comparative Education Research Centre, The University of Hong Kong. https://cerc.edu.hku.hk/books/shadow-education-in-myanmar-private-supplementary-tutoring-and-its-policy-implications/
- Bray, M., Kobakhidze, M.N., Zhang, W. and Liu, J. (2018). The hidden curriculum in a hidden marketplace: Relationships and values in Cambodia's shadow education system. *Journal of Curriculum Studies*, 50 (4): 435-455.
- Bray, M. and Kwo, O. (2014). *Regulating private tutoring for public good: Policy options for supplementary education in Asia*. Hong Kong: Comparative Education Research Centre, The University of Hong Kong,

- and Bangkok: UNESCO.
- Bray, M. and Lykins, C. (2012). *Shadow education: Private tutoring and its implications for policy makers in Asia*. Mandaluyong City: Asian Development Bank, and Hong Kong: Comparative Education Research Centre, The University of Hong Kong.
- Bray, M., Zhan, S., Lykins, C., Wang, D. and Kwo, O. (2014). Differentiated demand for private supplementary tutoring: Patterns and implications in Hong Kong secondary education'. *Economics of Education Review*, 38 (1): 24-37.
- Briant, E., Doherty, C., Dooley, K. and English, R. (2020). In fateful moments: the appeal of parent testimonials when selling private tutoring. *Pedagogy, Culture and Society*, 28 (2): 223-239.
- Ceylon (1943). *Report of the special committee on education*. Sessional Paper XXIV. Colombo: Ceylon Government Press.
- China, General Office of the State Council (GOSC) (2018), *Opinions of the General Office of the State Council on regulating the development of private tutoring institutions*, GOSC, Beijing. [in Chinese]
- China, CPC Central Committee and the General Office of the State Council (2021): *Opinions on Further Reducing the Workload of Students and the Burden of Out-of-School Training in the Compulsory Education Stage*. Beijing: Ministry of Education. [in Chinese] https://mp.weixin.qq.com/s/-Qd8YcNaEx_3Y2qkTe3WOA
- Choi, H. and Choi, A. (2016). Regulating private tutoring consumption in Korea: Lessons from another failure. *International Journal of Educational Development*, 49: 144-156.
- Christensen, S. and Zhang, W. (Eds.) (2021). *Shadow Education in the Nordic Countries*. Special issue of *ECNU Review of Education* [East China Normal University], *4* (3). http://www.roe.ecnu.edu.cn/f9/1d/c12911a391453/page.htm
- Cole, R. (2017). Estimating the impact of private tutoring on academic performance: Primary students in Sri Lanka. *Education Economics*, 25 (2): 142-157.
- Dahal, M. and Nguyen, Q. (2014). Private non-state sector engagement in the provision of educational services at the primary and secondary levels in South Asia: An analytical review of its role in school enrollment and student achievement. Policy research working paper 6899. Washington DC: The World Bank.
- Davis, J. (2013). *Educational legitimation and parental aspiration: Private tutoring in Perth, Western Australia*. PhD thesis, The University of Western Australia.
- Dawson, W. (2009). The tricks of the teacher: Shadow education and corruption in Cambodia. In S. Heyneman (Ed.), *Buying your way into heaven: Education and corruption in international perspective* (pp.51-74). Rotterdam: Sense.
- Dawson, W. (2010). Private tutoring and mass schooling in East Asia: Reflections of inequality in Japan, South Korea, and Cambodia. *Asia Pacific Education Review*, 11 (1): 14-24.
- Dhall, M. (2021). Interviewee on Australian Broadcasting Corporation (ABC) 'Nightlife: featuring tutoring', 24 August 2021. https://www.abc.net.au/radio/programs/nightlife/tutoring/13512516
- Doherty, C., and Dooley, K. (2018). Responsibilising parents: The nudge towards shadow tutoring. *British Journal of Sociology of Education*, 39 (4): 551-566.
- Eng, R. (2019). The tutoring industry in Hong Kong: From the past four decades to the future. *ECNU Review of Education* [East China Normal University], 2 (1): 77-86.
- Entrich, S.R. (2018). Shadow education and social inequalities in Japan: Evolving patterns and conceptual implications. Cham: Springer.
- Entrich, S.R. (2021). Worldwide shadow education and social inequality: Explaining the differences in the socioeconomic gap in access to shadow education across 63 societies. *International Journal of Comparative Sociology*, 61 (6): 441-475.

- Exley, S. (2020). Selective schooling and its relationship to private tutoring: The case of South Korea. *Comparative Education*, *56* (2): 218-235.
- Feng, S. (2021). The evolution of shadow education in China: From emergence to capitalization. *Hungarian Educational Research Journal*, 11 (2): 89-100.
- Galvão, F.V. (2020). 'Ensino suplementar no contexto Brasileiro: Uma análise baseadanos dados do ENEM [Supplementary education in the Brazilian context: An analysis based on ENEM data]. *Educação e Sociedade*, 42: 1-18.
- Hamid, M.O, Sussex, R. and Khan, A. (2009). Private tutoring in English for secondary school students in Bangladesh. *TESOL Quarterly*, 43 (2): 281-308.
- Hanushek, E.A. and Woessmann, L. (2017). School resources and student achievement: A review of cross-country economic research. In M. Rosén, K.Y. Hansen and U. Wolff (Eds.), *Cognitive Abilities and Educational Outcomes: A Festschrift in Honour of Jan-Eric Gustafsson* (pp.149-171). Cham: Springer.
- Independent, The (2012). Teachers barred from coaching own students. 15 June, Dhaka.
- India, National Statistical Office (2020). *Household Social Consumption on Education in India: NSS 75th Round, July 2017-June 2018.* New Delhi: National Statistical Office, Ministry of Statistics and Programme Implementation.
- Jayachandran, S. (2014). Incentives to teach badly: After-school tutoring in developing countries. *Journal of Development Economics*, 108: 190-205.
- Jelani, J. and Tan, A.K.G. (2012). Determinants of participation and expenditure patterns of private tuition received by primary school students in Penang, Malaysia: An exploratory study. *Asia Pacific Journal of Education*, 32 (1): 19-35.
- Joshi, P. (2021). Private schooling and tutoring at scale in South Asia. In P.M. Sarangapani and R. Pappu (Eds.), *Handbook of education systems in South Asia* (pp.1127-1146), Singapore: Springer.
- Kalikova, S. and Rakhimzhanova, Z. (2009). Private tutoring in Kazakhstan. In I. Silova (Ed.), *Private supplementary tutoring in Central Asia: New opportunities and burdens* (pp.93-118). Paris: UNESCO International Institute for Educational Planning (IIEP).
- Kang, C. and Park, Y. (2021). Private tutoring and distribution of student academic outcomes: An implication of the presence of private tutoring for educational inequality. *The Korean Economic Review*, *37* (2): 287-326.
- Kenayathulla, H.B. (2013). Household expenditures on private tutoring: Emerging evidence from Malaysia. *Asia Pacific Educational Review*, *14*: 629-644.
- Kim, Y.C. (2016). *Shadow education and the curriculum and culture of schooling in South Korea*. New York: Palgrave Macmillan.
- Kimura, H. (2018). *Data-based discussion on education and children in Japan 2: Analyzing juku another school after school*. https://www.childresearch.net/projects/data_Japan/2018_02.html, accessed 4 July 2021.
- KipMcGrath (2021). KipMcGrath education centres. <u>Choose Region Kip McGrath Education Centres</u>, accessed 8 July 2021.
- Koh, A. (2016). On 'gods' and 'kings' in the tutorial industry: A 'media spectacle' analysis of the shadow education in Hong Kong'. In J. Moss and B. Pini (Eds.), *Visual research methods in educational research* (pp.189-208), London: Palgrave Macmillan.
- Korean Statistical Information Service (2020). Participation rate on private education by school level and characteristics.

 http://kosis.kr/eng/statisticsList/statisticsListIndex.do?menuId=M_01_01andvwcd=MT_ETITLEandp
 armTabId=M_01_01andstatId=1963003andthemaId=#SelectStatsBoxDiv accessed 23 February 2020.

- Kumon (2021). About Kumon. https://www.kumongroup.com/eng/about-kumon/history/?ID=eng_about-kumon, accessed 8 July 2021.
- Lasekan, O., Moraga, A. and Galvez, A. (2019). Online Marketing by Private English Tutors in Chile: A Content Analysis of a Tutor Listing Website. *International Journal of Learning, Teaching and Educational Research*, 18 (12): 46-62.
- Lee, C.J. and Jang, H.M. (2010). The history of policy responses to shadow education in Korea: Implications for the next cycle of policy responses. In C.J. Lee, S.Y. Kim and D. Adams (Eds.), *Sixty years of Korean education* (pp.512-545). Seoul: Seoul National University Press.
- Liao, X. and Huang, X. (2018). Who is More Likely to Participate in Private Tutoring and Does it Work?: Evidence from PISA (2015). *ECNU Review of Education* [East China Normal University], *1* (3): 69-95.
- Liu, F. (2016). The rise of the "priceless" child in China. Comparative Education Review, 60 (1): 105-130
- Liu, J. and Bray, M. (2020). Evolving micro-level processes of demand for private supplementary tutoring: Patterns and implications at primary and lower secondary levels in China. *Educational Studies*, 46 (2): 170-187.
- Mahmud, R. (2021). Learning in the shadows: parents' investments, family burden, and students' workload in Dhaka, Bangladesh. *Asia Pacific Education Review*. https://doi.org/10.1007/s12564-020-09655-9.
- Malaysia, Government of (2006). Guidelines for approval to do jobs outside as tutors or part-time trainers. Service Circular No.1 of 2006. Putrajaya: Ministry of Education. [in Malay].
- Marshall, J.H. and Fukao, T. (2019). Shadow education and inequality in lower secondary schooling in Cambodia: Understanding the dynamics of private tutoring participation and provision. *Comparative Education Review*, 63 (1): 98-120.
- Nath, S.R. (2011). "Shadow Education in Bangladesh". Presentation at a seminar organised by UNESCO in conjunction with the National Academy of Educational Management (NAEM), Dhaka, 11 August.
- Nazeer, A. (2006). *Teaching economics at secondary school level in the Maldives: A cooperative learning model*. PhD thesis, University of Waikato.
- Ni, D. (2021). Tutoring ban leaves a trail of debt, anger, and broken dreams. *Sixth Tone*, 1 November. https://mp.weixin.qq.com/s/fKHeX4Ir-EOngiNbM39GaA, accessed 29 November 2021.
- Pallegedara, A. (2011). Demand for private tuition classes under the free education policy: Evidence based on Sri Lanka. Munich: Munich Personal RePEc Archive. http://mpra.ub.uni-muenchen.de/31969/1/MPRA_paper_31969.pdf
- Pallegedara, A. (2018). Private tutoring expenditure: An empirical analysis based on Sri Lankan households. *Review of Development Economics*, 22 (3): 1278-1295.
- Panda, N. and Behera, L. (2021). Learning opportunities during school closure: Exploring prevalence of shadow education. *Pedagogy of Learning*, 7 (3): 36-47.
- Piao, H. and Hwang, H. (2021). Shadow education policy in Korea during the COVID-19 pandemic. *ECNU Review of Education* [East China Normal University], *4* (3): 652-666. https://journals.sagepub.com/doi/full/10.1177/20965311211013825
- Psacharopoulos, G. and Patrinos, H.A. (2018). Returns to investment in education: A decennial review of the global literature, *Education Economics*, 26 (5): 445-458.
- Sen, A. (2010). Primary schooling in West Bengal. *Prospects: Quarterly Review of Comparative Education*, 40 (3): 311-320.
- Seth, M.J. (2002). *Education fever: Society, politics, and the pursuit of schooling in South Korea*. Honolulu: University of Hawai'i Press.
- Silova, I. (2010). Private tutoring in Eastern Europe and Central Asia: Policy choices and implications. *Compare: A Journal of Comparative and International Education*, 40 (3): 327-344.

- Silova, I. and Kazimzade, E. (2006). Azerbaijan. In I. Silova, V. Būdienė and M. Bray (Eds.), *Education in a hidden marketplace: Monitoring of private tutoring* (pp.113-142). New York: Open Society Institute.
- Silova, I.; Būdienė, V. and Bray, M. (Eds.) (2006). *Education in a hidden marketplace: Monitoring of private tutoring*. New York: Open Society Institute.
- Sriprakash, A., Proctor, H. and Hu, B. (2016). Visible pedagogic work: Parenting, private tutoring and educational advantage in Australia, *Discourse: Studies in the Cultural Politics of Education*, *37* (3): 426-441.
- Tan, J. (2019). Equity and Meritocracy in Singapore. In S.S. Teng, M. Manzon and K.K. Poon (Eds), *Equity in excellence: Experiences of East Asian high-performing education systems* (pp.111-125). Singapore: Springer.
- Tan, P.L. (2011). The Economic Impacts of Migrant Maids in Malaysia. PhD thesis, University of Waikato.
- *The Economist* (2019). Hungry for Knowledge: Private Tutors are Illegal in North Korea, but Thriving. 14 December. https://www.economist.com/asia/2019/12/12/private-tutors-are-illegal-in-north-korea-but-thriving
- Vu, X.N.H. and Ngo, M.T. (2011). Forms and Effects of Corruption on the Education Sector in Vietnam. Hanoi: Towards Transparency (TT) and Transparency International (TI). Available online: http://www.transparency.org/regional_pages/asia_pacific/transparency_international_in_vietnam/activities/corruption_in_service_delivery#education.
- Watanabe, M. (2013). *Juku: The stealth force of education and the deterioration of schools in Japan*. North Charleston: CreateSpace.
- Wei, Y. (2020). Summary report on the CIEFR-HS data. Educational Finance in China, (5), 1-20. [in Chinese]
- Williamson, B. and Hogan, A. (2020). *Commercialisation and privatisation in/of education in the context of Covid-19*. Brussels: Education International.
- Yung, K.W.H. (2020). Investing in English private tutoring to move socially upward: A narrative inquiry of an underprivileged student in Hong Kong. *Journal of Multilingual and Multicultural Development*, *41* (10): 872-885.
- Zhan, S., Bray, M., Wang, D., Lykins, C. and Kwo, O. (2013). The effectiveness of private tutoring: Students' perceptions in comparison with mainstream schooling in Hong Kong. *Asia Pacific Education Review*, 14 (4): 495-509.
- Zhang, W. (2019). Regulating private tutoring in China: Uniform policies, diverse responses. *ECNU Review of Education*, 2 (1): 25-43.
- Zhang, W. (2021). *Non-State actors in education: The nature, dynamics and regulatory implications of private supplementary tutoring*. Background Paper for the Global Education Monitoring Report. Paris: UNESCO.
- Zhang, W. and Bray, M. (2020). Comparative research on shadow education: Achievements, challenges, and the agenda ahead'. *European Journal of Education*, 55 (3): 322-341.
- Zhang, W. and Bray, M. (2021). A changing environment of urban education: Historical and spatial analysis of private supplementary tutoring in China. *Environment and Urbanization*, *33* (1): 43-62.
- Zhang, W. and Yamato, Y. (2018). Shadow education in East Asia: Entrenched but evolving private supplementary tutoring. In K. Kennedy and J.C.K. Lee (Eds.), *Routledge International Handbook on Schools and Schooling in Asia* (pp.323-332). London: Routledge.
- Zuo, S. (2021). Wide-ranging guideline to rein in tutoring sector in China. *China Daily*, 26 July. https://newsletter.chinadailyhk.com/newsletter/top-headlines/article/230204?user-id=193527andemail=1d=3171#Wide-ranging-guideline-to-rein-in-tutoring-sector-in-China