

Shadow Education

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Abstract

Over the past few decades shadow education has expanded worldwide and become a multi-billion dollar global service-industry offering many different and costly tutoring services from after-school classes to a host of on-line options. While much remains to be explored as to why this transformation is occurring, the worldwide expansion of shadow education is now a substantial topic in the sociology of education. This essay briefly describes the foundational research on shadow education; outlines the cutting-edge research on shadow education effects; and discusses key issues for future research. This essay concludes that shadow education becomes more normative to the point of being a partner institution to formal education itself and as an educational phenomenon it will continue to be a topic of study and policy analysis.

INTRODUCTION

Shadow education—private supplementary tutoring or coaching aimed to provide additional help to students outside of school mainly to prepare for examinations—has long been practiced as individual tutoring on an informal basis especially in many East Asian societies including Hong Kong, Taiwan, Japan, and South Korea. In just a few decades, however, it has expanded worldwide and become a multi-billion dollar global service industry offering many different and costly tutoring services from after-school classes to a host of online options. While much remains to be explored as to why this transformation is occurring, the worldwide expansion of shadow education is now a substantial topic in the sociology of education and routinely causes concern among educational policymakers owing largely to its implication for educational quality and equality. This is because shadow education, a privately purchased service, covers subjects taught in the mainstream education and thus is a potential source of educational advantage gained through private funds of families. Further, some educators consider shadow education to be a corruption of the education process itself, as for example when students who

participate in shadow education tend to pay less attention in the classroom. Ironically, despite a growing body of research, it is still unclear whether and how shadow education affects the mainstream education and educational outcomes. Yet, if shadow education does indeed make a difference in educational outcomes, many educators and sociologists believe that these practices could contribute to maintaining or exacerbating educational inequality by mediating the relationship between family background and children's educational outcomes. As an educational phenomenon, shadow education will continue to be a topic of study and policy analysis.

FOUNDATIONAL RESEARCH

DEFINITION

In an early study of educational stratification in Japanese society, Stevenson and Baker (1992) coined the sociological and educational term *shadow education* in the early 1990s to denote the strong connection between the mainstream education system and widespread out-of-school learning activities. Later Mark Bray brought this term to the attention of educational policy-makers by documenting the growth in shadow education worldwide, and in the process developed a detailed, and now standard, definition of which learning activities can be considered shadow education:

Supplement. Shadow education is supplementary in nature because it addresses subjects already covered in school.

Market. Shadow education is provided in exchange for a fee as opposed to unpaid tutoring provided by families or community members or extra tutoring provided by school teachers as part of their professional commitments and responsibilities.

Academic. Shadow education covers academic subjects including languages mathematics and other examinable subjects but excludes musical artistic or sporting skills that are learned primarily for pleasure and/or for a more rounded form of personal development.

PREVALENCE AND DETERMINANTS

While research on shadow education documents the worldwide growth of shadow education in national systems of education, there remains cross-national variation in the extent to which families purchase shadow education. Several scholars have speculated on conditions under which extensive shadow education can be observed. First, many attribute extensive shadow education to such conditions as the use of high-stakes examinations and the tight linkage between the educational outcomes in early adulthood

and future occupations or general social status. However, this explanation of the origin of shadow education is not fully supported by empirical evidence because research indicates that the use of the high-stakes examinations is not significantly associated with the degree of student participation in shadow education.

Other researchers suggest that a nation's quality of public education affects the prevalence shadow education. For example, if parents and their children are dissatisfied with the mainstream education because of poor quality of instruction and teachers, they may rely on shadow education to supplement low-quality instructions. In addition, teachers' low salaries and low morale may combine to lead teachers to be involved in shadow education by becoming teachers in shadow education institutes. Some research found evidence supporting this theoretical explanation emphasizing the role of the quality of the mainstream in the causes of shadow education by showing that lower public educational expenditures are associated with more extensive shadow education. However, this theoretical model neither receives strong empirical support nor helps explain why shadow education is expanded worldwide.

Finally, other scholars observe that shadow education is spreading worldwide because it is now part of an extensive culture of formal education. The worldwide use of shadow education is motivated by the dominant logic of educational expansion in all its forms. As considerable participation in formal education and academic success is a taken-for-granted and dominant part of social and occupational status attainment, shadow education becomes more prevalent as an accepted and expected cultural aspect of education, now practiced even up through higher education. Yet, given that shadow education is not fully prevalence in all national mass education systems, how far significant institutionalization of these activities will continue into the future is an open question. Understanding the origins and future path of shadow education is an issue ripe for new research.

THE IMPACT OF SHADOW EDUCATION

Another key scientific and policy question regarding shadow education is whether these activities actually improve educational outcomes, and if significant variation in costs of different services also corresponds to increased advantage. Overwhelmingly parents, students, and providers of shadow education strongly believe both to be the case, but until recently, there has been little systematic evidence. While much current research is focusing on the educational effects of shadow education, so far reported results are contradictory, as some studies find strong positive effects, whereas

other find only modest and even trivial effects. Furthermore, a few studies report an adverse effect of shadow education on academic achievement. In addition, there is virtually no evidence on whether more costly services are more effective. This mixed evidence has been attributed to various factors including the broad divergence in the operational definitions of shadow education variables, the choice of dependent variables, and the type of statistical models employed, but to date, there is not a clear definitive conclusions about the effects of shadow education on educational outcomes, and much remains to be investigated. In addition, there is not much evidence of even an association between high national use of shadow education and national means on international tests.

CUTTING-EDGE RESEARCH

A major limitation on determining the exact nature and magnitude of the effect of shadow education on outcomes is a lack of experimental design or statistical methodologies that closely approximate such a design. As with the evaluation of other on-going educational activities, selection effects—non-random assignment to treatment, or in this case who uses shadow education—have not yet been adequately addressed. For example, a growing body of literature in a wide range of societies consistently documents that students from higher socioeconomic status (SES) families are more likely than those from lower SES families to use shadow education. These and other preexisting differences between students who use shadow education and students who do not can produce selection effects that make it difficult to identify a causal link between shadow education and educational outcomes. The inclusion of control variables in regression analyses is the most common approach to reducing selection bias, but this is often not very effective.

Recent cutting-edge research on shadow education, however, use more sophisticated and rigorous models to estimate the causal effect of shadow education, including instrument variables and propensity scores matching, which are more appropriate to draw a causal inference than the traditional regression analyses. The few studies that used innovative methods to address these selection issues suggest that shadow education have some positive effects on academic achievement. In addition, this more recent research on has begun to examine heterogeneity in the effects of shadow education across the main different forms these activities take. Shadow education services come in many forms (e.g., one-on-one academic tutoring, cram schools, correspondence courses, and Internet tutoring services), yet almost all studies so far have focused only on the effects of participation versus nonparticipation in shadow education, lumping together all kinds

often without even a measure of the amount of services purchased. This misses, for example, possible consequences of the fact that some students receive shadow education in a face-to-face (one-to-one or one-to-group) mode or in large classes (cram school), whereas other students rely on correspondence courses via mails or, increasingly, via the Internet. With such variety in shadow education services, it is reasonable to expect that effectiveness may vary, depending on the type and amount used. Moreover indeed, emerging research that examined differential effects of shadow education suggests that preparatory cram school made a small difference in achievement gains in math, whereas individual tutoring, correspondence courses, and on-line tutoring services made little difference. Together, the findings from cutting-edge research in this area increasingly help us better understand nuanced differences in the effects of shadow education.

KEY ISSUES FOR FUTURE RESEARCH

The education establishment in many part of the world is just beginning to appreciate shadow education as an important dimension of the modern schooling process. Although shadow education issues have been widely investigated in recent years, its origin, factors increasing demand, and possible influences on students' future education and their educational systems are not fully known. In fact, except for in a few nations with a long history of political issues about shadow education (e.g. South Korea and Japan), only recently have these educational services drawn increased research and policy attention across many nations and multilateral education agencies. Only now are we beginning to understand shadow education as an important dimension of parental involvement and as a modern schooling process. More research is needed to produce systematic knowledge about the various ways in which shadow education might influence educational outcomes and educational processes.

Furthermore, future research on shadow education should look at the possible impact that shadow education has on the operations and policy formation in national systems of public education. As some national education systems embrace shadow education as a normative part of the education system, we do not know much about the potential impact that these services will have on other policy issues. For example, in the United States, supplementary tutoring services are provided to children in schools that failed to meet a minimum level of progress as part of the No Child Left Behind. Another example is that the government of South Korea, which once had banned all types of shadow education, now innovatively provides free lectures aimed

at tutoring for in-school tests via the nation's Educational Broadcasting System. These recent examples of the transformation and institutionalization of shadow education into customized learning services within mainstream education systems are but a few research avenues open to understanding the dynamic nature of shadow education and its evolving relationship to formal education.

Future shadow education research will require higher-quality data and greater methodological rigor to produce the kinds of findings that can inform educational policy. This is because, as noted, shadow education varies not only in modes but also in quality, duration, and intensity. Studies of shadow education effects will also need to use longitudinal data and rigorous methods to address the selection effects issue. Experimental design, for example, where a group of students are randomly assigned to a particular type of shadow education or a control group, is the best methodology to determine whether there is a causal link between shadow education and educational outcomes.

It is clear from the current documentation of its use and prevalence that these educational services are growing worldwide. Perhaps, it is most insightful to consider the phenomenon of growing shadow education from the perspective of formal education as a social institution that can influence significant portions of modern culture. As formal education has expanded and become more central in postindustrial society, occupations and adult social status are created anew, along with emerging privileged qualities of knowledge, expanded concept of human development and capacities, new approaches to work, more types of experts and elaborated educated social statuses, and even a new concept of society itself. Not only are people trained and credentialed through schooling, they also are thought to have enhanced cognitive skills that are essential to their overall functioning. These educated individuals are placed into a society that is itself changed by the ideas of what enhanced cognitive skills and widespread education can do for all aspects of society. This educational revolution has brought about a robust culture of education.

Therefore, the practice of shadow education spreads worldwide because of the power of the culture of education. Shadow education is not as just a narrow supplement to learning or as only a form of family-financed educational opportunity. Instead, there is a symbiotic relationship between the robust culture of education and shadow education; as the former intensifies, the logic of the later expands and heads toward a universal practice. Shadow education goes along with the expansion of formal education to younger children and longer into adulthood in many nations. This institutional development of shadow education and its potential to change formal education is perhaps the most pressing key issue for future research.

SUMMARY

Shadow education is developed into a robust social institution along with the institutional development of education in general. It may continue to create educational inequalities and undermine some formal schooling processes, but it is unlikely to be banned or fall into disuse as its connection to the main social institution of formal education has become too strong. The best prediction is that shadow education will continue to move along with education expansion, and in the process transform the later as well. Most shadow education is private business, so market forces assist in its spread, but the businesses do this along the same institutional logic of mass education. These services are now publically recognized and discussed, and the companies continue to expand services for larger arrays of clients' educational needs. All the while though, shadow education becomes more normative to the point of being a partner institution to formal education itself.

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USEFUL LINK

<http://www.fe.hku.hk/cerc/SIG/SE-SIG.htm>.

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<http://davidbakerresearchproject.wordpress.com/>. David Baker's curriculum vitae: <http://www.ed.psu.edu/educ/faculty-cvs/dpb4.pdf>

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