Available online at www.sserr.ro

Social Sciences and Education Research Review

(4) 1 6-29 (2017) ISSN 2392-9683

# SHADOW EDUCATION: EVOLUTION, FLAWS AND FURTHER DEVELOPMENT OF THE TERM

Muhammad Abid MALIK
Assistant Professor, Virtual University of Pakistan, Pakistan
Email: m_abidmalik7@yahoo.com

## ABSTRACT

Shadow education stands for those activities which are designed to improve students' academic learning in examinable subjects taught in a formal school. This paper looks at the historical development of the term, and how it has been defined differently by different researchers. The paper challenges different definitions and conceptualizations about shadow education and try to stimulate further inquiry about it. It points out some flaws in those definitions and why they need to be modified with the changing time and expanding boundaries of the field. Furthermore, it looks at different terms which are frequently used interchangeably for shadow education and their appropriateness. Using different elements of those definitions, the paper comes up with a definition and subcategories of shadow education which may reduce some of the confusions arising from existing definitions and parameters.

**Keywords***:* shadow education, private tutoring, definition, shadow teaching, historical development

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

**JEL Classification: A2**

# SHADOW EDUCATION: EVOLUTION, FLAWS AND FURTHER DEVELOPMENT OF THE TERM

Shadow education has grown considerably as research area over the last thirty five plus years since "the detailed research" began from 1980 (Bray & Lykins, 2012, p. 26), but the concept and research findings are still muddled and cause confusions due to various reasons. One of the most prominent is the lack of clarity of the term and its boundaries. Different definitions have been put forward by the researchers which are not only different, but at times also contrasting and even contradictory in different aspects. Another thing is that the field has grown remarkably over the last couple of decades. As compared to those years when it was just private supplementary tutoring, it has now expanded into many new ways and directions. In certain countries like Japan, shadow education has evolved into a fully organized and institutionalized supplementary education system (Dierkes, 2010) with regulations and subfields quite similar to mainstream education system. They have exclusive supplementary books and curriculum, structure, management system, and teachers/ tutors' training and qualifications criteria. Bray (2010), while acknowledging the growing amount of research being done in this field, called it still "in its infancy" (p. 9); but the *infant* has grown quite a lot since then and now explores areas in a way hitherto unknown to it. The definitions and parameters set out in 1980s and even in the coming decade might have been able to meet the needs of those eras; but the changing time, environment, and ever expanding field demand a much more specific, clear and comprehensive definition. That definition should not only match its expanding boundaries, but also specifically divide different types of shadow education under appropriate

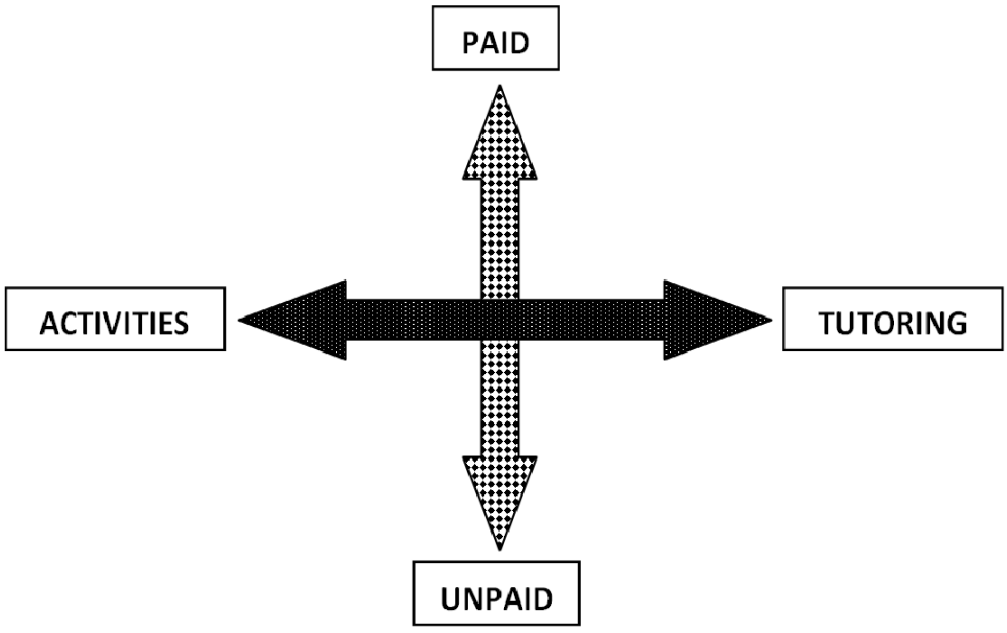
BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

categories with similar impact and characteristics. In this way, the findings will be less likely to be muddled and ambiguous..

Shadow education is a term that has been used by various researchers and scholars for those academic activities which are employed to reinforce students' learning about school taught examinable subjects. There have been a lot of confusion stemming from different variations of the term as some researchers include all the activities for such purpose regardless of the fact if they are paid or unpaid (Baker, Akiba, LeTendre, & Wiseman, 2001; Baker & LeTendre, 2005; Mori & Baker, 2010) while some others include only those activities which are for the sake of profit-making (Stevenson & Baker, 1992; Bray, 1999, 2009; Buchmann, Condron & Roscigno, 2010; Zhang, 2011; Aslam & Atherton, 2012). Yet, there is another area of conflict. Some researchers talk about activities which means any of the academic activities which can be carried out to reinforce students' learning in examinable school taught subjects (Stevenson & Baker, 1992; Baker et al., 2001; Mori & Baker, 2010; Buchmann et al., 2010) while some others specifically focus on tutoring (Bray, 1999, 2009; Southgate, 2009; Kobakhidze, 2014; Zhang & Bray, 2015). *Figure 1* points out the main areas of conflict in defining the parameters and boundaries of shadow education.

Figure 1. Areas of Conflict in Defining the Parameters of Shadow Education

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)




Both of these terms cause confusions as the term tutoring is limited to one-to-one and one-to-many supplementary teaching (both face-to-face and online) whereas the field has expanded a great deal over the years to include many other mediums and types. The term *activates* on the other hand, covers everything, but the findings become perplexing as the academic, social and psychological impact and determinants of different types of shadow education are not similar. As a result, the findings may cause confusion as the results of one type could inappropriately be generalized to all. The research about paid face-to-face tutoring often reveals that it might give rise to malpractice, corruption and coercion as some of the teachers use their power and position to force their students into signing up for shadow education from them (Bray & Lykins, 2012; Kobakhidze, 2014; Zhang, 2014), but this is highly unlikely to be the case with prerecorded online lectures or solved exam exercises even when they have to be paid for or bought. Still, the result of the paid face-to-face tutoring would say that shadow education causes coercion or malpractice

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

(generalizing the finding of one kind to all). This shows that not only is there a need to redefine the term more appropriately, but also to use specific terms for its different types to avoid confusions.

The paper tries to discuss the historical development of the term and how different definitions have caused some ambiguities. First of all, it looks at the word "shadow" as a metaphor as it has been used in shadow education, how it has been related to this field, and trying to add another dimension to it. The paper then focuses on how shadow education has been defined by different researchers at different times, analyzing those definitions and pointing out why they may not be compatible with the current environment and context. It will also look at some of the terms which have been used interchangeably by various researchers, and their appropriateness. Finally, incorporating different elements from the previous definitions, the paper will come up with a modified definition of shadow education, and different subcategories to meet the needs of the current environment and situation. The paper also points out some of the common misunderstandings and improper references about shadow education which are commonly found in the research literature.

### 1.1 Shadow as a metaphor

It is important to know why the word shadow was chosen to describe private supplementary academic learning. The term shadow was used as this system mimics, imitates and follows the mainstream education system and any change in its size, pattern, curriculum and structure affects the shadow education system as well (Bray, 1999; Baker et al., 2001; Lee, Park & Lee, 2009; Bray & Lykins, 2012).

Stevenson and Baker (1992) have been cited by many to have used the term shadow education as a metaphor because these activities mimic and follow the mainstream schooling in multiple ways. Interestingly, a careful study of

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

Stevenson and Baker (1992) reveals that they did not use the metaphor in exactly the same sense. Instead, they said that the timings, types, forms and use of shadow education were influenced and shaped by "allocation rules" (Stevenson and Baker, 1992, p. 1640). They further added that the term is used "to denote strong connection between allocation rules and nonformal schooling" (p. 1640). It is quite clear that they were talking about school entrance exams and/ or procedures that influence shadow education system than actual school process, curriculum and structure.

Bray (1999) put private supplementary tutoring into two categories: (a) private supplementary tutoring for differentiated demand (subjects and skills which are not taught at formal schools), and (b) to improve the students' performance in the school taught subjects (p. 85- 86). He placed the focus of his study on the second category. He used the metaphor closer to how it is employed today (mimicking, and influenced by characteristics, structure, size and shape of mainstream schooling) when he justified the appropriateness of the metaphor shadow by giving various reasons. He said that shadow education existed only due to the presence of mainstream schooling, its shape and size were in line with the mainstream education system, more attention was paid to the mainstream education system than the shadow, and finally that its features were much less distinct and clear than the mainstream one (p. 17). Baker et al. (2001) clarified why the term shadow was used, saying "these 'shadow education' activities mimic or shadow formal schooling processes and requirements."

The metaphor shadow has also been linked and related to the term shadow economy as quite similar to shadow economy, much of the shadow education system is unregistered, untaxed and even illegal in some ways and places (Bray & Kwok 2003; Silova & Bray, 2006).

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

Bray and Lykins (2012) gave another explanation why shadow might be a proper metaphor for shadow education. They pointed out that just like a shadow- when cast by sundial- could indicate the time of the day, shadow education system could potentially reveal different features and practices of mainstream schooling (p. 1 and p. 65). In this sense, shadow education can also give some indication about the quality of mainstream education system (formal schools).

It is possible to give another dimension to the metaphor shadow in this term. It has been observed that some shadow education centers become proper, full scale formal schools. Of course, this can only be observed about private formal schools. This trend can be observed in Pakistan and other Southeast Asian countries. Shadow education centers are opened up and sometimes (if they are able to attract students, make a name and establish themselves), convert to full time formal schools. Some of them retain their "shadowy" role in the evening time whereas the others convert themselves entirely to mainstream role (formal schools). In this sense, the metaphor shadow in shadow education can also be related to that in "shadow cabinet". Surely, it applies to only some of those shadow education centers; but similarly not all the shadow cabinet members become formal ministers.

### 1.2. Definitions of shadow education: problems and ambiguities

Although the phenomenon of shadow education is not a new one, the term is. It was not until 1991 that the term started to echo in the educational circles. The metaphor is defined differently by different scholars, causing some confusion and ambiguities (Bray 2010). Some definitions of shadow education are too broad while some others are too narrow. By and large, it has two main variations: (a) presented by Baker and others (Stevenson & Baker, 1992; Baker,

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

et al., 2001, Baker & LeTendre, 2005; Mori & Baker, 2010) which talks about all of those activities that may be employed to supplement students' school learning, but profit-making is not a defining characteristic of it; (b) by Bray and others (Bray, 1999; Bray & Kwok, 2003; Borodchuk, 2011; Bray, Kobakhidze, Liu & Zhang, 2016) which included profit-making as one of the core parameters of shadow education, but most of the times talk about tutoring. The latter group of researchers sometimes uses the terms private tutoring, private supplementary tutoring, and shadow education in quite similar and at times even interchangeable way. Most of the other researchers follow any one of those two variations. Not only different researchers use different variations of the definitions, but there is also lack of internal consistency in different writings of the same researcher, causing confusion and misunderstandings.

The phenomenon of paid supplementary tutoring is almost as old as education itself. There have been ample examples where kings and ministers arranged for highly qualified scholars for their children. Some of those children also attended formal schools especially established for nobles. Sometimes, those *tutors* were paid by giving lands to them. Although, articles about private supplementary tutoring date as far back as 1940, "detailed research" about shadow education originated from 1980 (Bray & Lykins, 2012, p. 26). From 1990, this field started to grab full attention of the researchers with a consistent flow of articles and research papers from different parts of the world. In 1991, two pieces of research were carried out in Sri Lanka and Malaysia about the after school, supplementary education by de Silva et al. (1991) and Marimuthu et al. (1991) respectively. Marimuthu et al. (1991) defined private tutoring as "learning activities for the clientele of the formal school which takes place outside the regular school instructions program for a fee or as a community service." (p. 1). Whereas private tutoring included both paid and unpaid

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

activities, they added payment as an essential characteristic of shadow education. Talking about shadow education system, the paper said, “a private tuition has thus become a fee-paying ‘shadow education system’” (Marimuthu et al. 1991, p. 5). Here it clearly used the term shadow education for only fee-paying private tutoring.

The term shadow education as part of the title was first used in 1992 by George, and Stevenson and Baker separately. On April 4, George published an article in a Singaporean newspaper ‘Straits Times’. That article discussed the same phenomenon. In that article, he used the term “private tutoring classes” for shadow education. Although, he did not specifically mention the term paid or for profit-making as a defining characteristic of shadow education, he did mention that the parents spent money for those extra classes. It is important to note that although he only used the word “shadow” in the title of his article, he meant shadow education by it.

Stevenson and Baker (1992) were the first ones to use the term shadow education in the title of a research paper. They started their paper by giving a general definition of shadow education, saying, “Shadow education is a set of educational activities that occur out-side formal schooling and are designed to enhance the student's formal school career.” (Stevenson & Baker, 1992, p. 1639). Although this definition seems too broad, they narrowed it down further by adding more characteristics to it,

Shadow education encompasses a large set of varied educational activities that are firmly rooted within the private sector. Students and their families pay tuition for private schools to prepare them for examinations, purchase workbooks with questions from previous examinations, and pay for practice tests that are administered and graded by private companies. (Stevenson & Baker, 1992, p. 1643)

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

They used many key words in this paragraph such as “private sector”, “pay”, “prepare for examinations” and “purchase”. Additionally, they used the term “varied educational activities” which also includes other helping materials such as work books, and solved and unsolved practice tests. Such broad definition can also include prerecorded lectures, online tests, CAT (Computer aided tests) and educational CDs etc.

This definition covers different types of activities which may be used to improve a student’s academic learning and exam performance. Even in the paper, they did not limit their research to different kinds of paid supplementary tutoring only, but also to other academic activities such as practicing tests for examinations and corresponding courses (p. 1644). This definition and approach seems comprehensive as it covers most of the supplementary activities that were employed at that time, but it has its own drawbacks. All such activities were put under the umbrella term of shadow education. These activities are different in nature and impact. The academic impact, determinants and the disparities they cause are potentially different from one type to another. Some of them are similar, but all cannot be considered to have similar determinants and impact.

When Baker next wrote about shadow education with co-researchers, the “paid” element was eliminated from the definition (Baker et al., 2001). In their paper, they used these words for shadow education, “... structured, outside-school activities for improving students' mathematics achievements” (Baker et al., 2001, p. 1). Here the term structured is used as one of the characteristics of such activities. The term here seems unspecific. Does structured activities mean that they are carried out by proper organization, done in an organized or structured way, or they have any proper “structure”? It would cause confusion as some of the shadow education activities are non-structured in nature. They

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

might not even have a common goal or purpose. In one-to-one coaching, some tutors would simply stay there as the students are doing the homework by themselves while others would help the students in learning school work.

Mori and Baker (2010) said that "shadow education follows the institutional logic of formal education." (p. 1). This term is clearer as the words "institutional logic" is more vivid and specific than "structured". Also, it points out why the term shadow is used as metaphor. Here again they did not use paid or profit-making as one of the essential characteristics of shadow education. Although, twice in the paper, they talk about students and parents buying shadow education (Mori & Baker, 2010, p. 36, 43).

It is quite clear that although these researchers (Stevenson & Baker, 1992; Baker et al., 2001, Mori & Baker, 2010) talk about buying or spending money on shadow education, they do not make it its defining characteristic. As a result, shadow education stands for both paid and unpaid academic activities which are employed to improve students' school learning and exam performance. They also include all activates which can be used for this purpose (mailed assignments and tests, tutoring, helping books, solved questionnaires and notes etc).

Buchmann et al. (2010) followed the same line and also expanded the boundaries of shadow education to all the services that are paid to achieve academic goals (pass entrance examinations, achieve higher scores etc.). They also considered "test prep manuals and computer software programs" (p. 435) that are designed to improve the students' academic achievements as part of shadow education activities.

Bray (1999) set out key parameters about shadow education, eliminating some of the confusions surrounding it. He mentioned two parameters of shadow education namely "privateness" that means that it is offered privately

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

(either by individuals or organizations) and is paid, and "supplementation" meaning that it is to supplement school taught subjects. He drew the boundaries of shadow education in his booklet by saying, "tutoring provided by private entrepreneurs and individuals for profit-making purposes" (Bray, 1999, p. 20). In the same booklet, he further said, "...academic subjects taught in mainstream schools, particularly languages, mathematics and other examinable subjects." (Bray, 1999, p. 20)

These two citations from Bray (1999) along with the parameters mentioned earlier, set out clear characteristics of shadow education: that supplements what is offered in schools about academic examinable subjects (games maybe offered in school, but any supplementation to them would not be considered shadow education as they are non-academic, non-examinable), pirvateness and profit-making (supplementation of academic, examinable subjects that are given to the students, but are not for profit-making would not be considered shadow education).

Although, it is clearer as he was consistent with limiting shadow education to only those activities which were for profit-making, it has its own distinctive problems. He frequently uses the term "tutoring" for shadow education hence eliminating other activates (even though they might be paid and supplementary). Even when he used the term activities, it was used to refer to tuition or tutoring (Bray, 1999, p. 9, 78). Back then, the term tutoring might have covered all the activities in the field of shadow education, but now the field has grown substantially. There are many paid and supplementary activities which are designed to improve the students' academic learning such as prerecorded lectures, online and paperback exercises, guide books and solved exercises. These activities are not tutoring, but in characteristics and nature, they are part of shadow education system. They are becoming increasingly

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

common recently with the spread of digital and online media. Bray and others' usage of the term tutoring excludes such activities from shadow education. This does not cover the current situation.

### 1.3. Relationships between shadow education and different kinds of tutoring

One major issue with shadow education is how this term is used with tutoring, private tutoring and private supplementary tutoring. Many researchers use the term private supplementary tutoring and shadow education interchangeably or in the similar way (Bray, 1999, 2014; Lee et al., 2009; Zhang, 2014; Bray & Kobakhidze, 2014), but the issue does not stop here. Many other researchers use the term paid private supplementary tutoring, private tutoring or even tutoring in the same way as shadow education (Silova & Bray, 2006; Liu, 2012; Tok, 2013; Bray & Kwo, 2014). Many of them use different terms (tutoring, private tutoring and private supplementary tutoring) to describe shadow education. This causes great confusion not only for the readers, but also for scholars as the findings become ambiguous. Zhang and Bray (2015) talk about "shadow education system of private supplementary tutoring" (p. 83) which means private supplementary tutoring is a broader term while shadow education is part it. It is hard to understand the rationale as private supplementary tutoring itself is very narrow and specific term, especially if the parameters set out by Bray for privateness and supplementation are followed (Bray, 1999). Kobakhidze (2014) on the other hand said, "free tutoring is another dimension of shadow education" (p. 465). Again, the sentence causes ambiguities as she herself uses the term private supplementary tutoring for shadow education (Bray & Kobakhidze, 2015). Also, it is interesting to compare the two statements as in one, private supplementary tutoring is broader term and shadow education is part of it, while in the other free tutoring is considered an

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

aspect of shadow education. Most of the recent literature focuses on the determinants, disparities, economics and policies about shadow education without addressing the core issues of its definitions and parameters in the current context and time. The field seems to be building more floors upwards before looking at the foundations and strengthening it.

In order to understand this issue, it is important to look at the basic concepts about tutoring and different types of it. Tutoring is a teaching method in which the attention is paid on a student or students, and they are taught in "personalized and individualized" manner (Medway, 1995, p. 271). Private tutoring is the same kind of teaching in which instructions are provided outside of formal school time and teaching responsibilities (by private individual or institutions, or by formal school teachers but privately). It excludes tutoring provided by public and private school teachers which are provided within their formal school duties. Private tutoring can mean supplementation of school taught subjects and also other subjects and skills not offered at schools (sports, music, arts, languages etc). Private supplementary tutoring narrows it further to only those subjects which are taught in the formal school. Bray (1999) when talked about privateness, added "profit making" to it, and most of the literature follows it in the same way (although, a teacher or a person may provide private tutoring free of cost so both private tutoring and private supplementary tutoring can be paid or unpaid as there is nothing in the word *private* that restricts them to free or profit-making). Paid private supplementary tutoring exclusively stands for those tutoring activities which are supplementary to the school learning, provided privately and also are paid. Tutoring and private tutoring cannot be used for shadow education as shadow education stands for those activities which supplement students' school learning. All the literature about shadow education agrees to this point (Marimuthu et al., 1991; Stevenson &

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

Baker, 1992; Bray, 1999; Mori & Baker, 2010; Bray & Lykins, 2012; Aslam & Atherton, 2012). This researcher believes that there is not only a need to redefine shadow education according to the changing times and divide it into different subcategories according to similar impact and characteristics, but also to be more careful while using those terms (private tutoring, private supplementary tutoring and paid private supplementary tutoring) interchangeably with shadow education.

## DEFINING SHADOW EDUCATION AND ITS SUBCATEGORIES

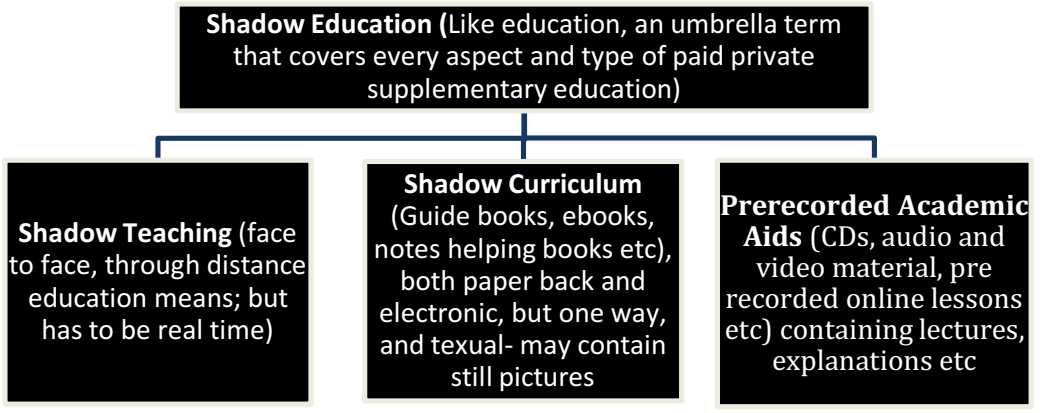
According to this researcher, shadow education means those activities that are meant to help the students to improve their school learning in examinable subjects. These activates must be paid by the students or on their behalf, and provided privately (outside of formal school responsibilities). This definition takes key points from the two schools of thought and merges them for a comprehensive one. Following Baker, it talks about activities which mean not only tutoring, but also other activities for this purpose such as solved and unsolved exercises, prerecorded lectures (via CDS or websites), guide books and notes (paperback and online) and other helping materials; but then it restricts it to only paid and private activities (following Bray). It is worth noting that it does not include those activities which are organized by public schools or government to help improve the academically weak students in their studies even when teachers are paid for those extra classes. It is because those payments are made by the public schools or government, not by the students or their parents. That would eliminate the element of privateness.

But even this definition of shadow education would cause similar kind of confusion as has been the case with the definition put forward by some other

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

researchers (Stevenson & Baker, 1992; Baker et al., 2001; Baker & LeTendre, 2005; Mori & Baker, 2010). Different types of shadow education are different in nature, characteristics and impact. Generalizing the findings of one type to all would cause confusions. The main term should still remain shadow education like education system which covers and includes all elements, but shadow education should be divided into subcategories according to their characteristics and impact. It will eliminate most of the above mentioned confusions. The researcher suggests the following categorization of shadow education as depicted in *Figure 2*.

Figure 2. Shadow Education and its Subcategories




### 1.4. Shadow teaching

Shadow teaching stands for any type of supplementary teaching that is provided by teacher, tutors, high school students or any other person either with physical presence or without it such as online teaching. One compulsory characteristics of it is real time teaching. Like shadow education, shadow teaching has to be for commercial purpose (profit-making). Free supplementary teaching is not part of shadow teaching. Prerecorded lectures are also not part of this category as they are not in real time. It is because their impact, how they are

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

delivered, received and obtained are completely different from face-to-face or live lectures. Most of the research about shadow education investigates shadow teaching (Ireson & Rushforth, 2004; Borodchuk, 2011; Zhang, 2014; )

### 1.5. Shadow curriculum

This includes all help books, eBooks, guides, helping materials, notes, solved and unsolved materials. Both paperback and electronic version are part of it, but they must be textual. They may contain still pictures, but should not be in form of lectures. They have to be read for learning, not heard or watched. If a CD contains textual material (notes, eBook); it would be a part of this category. If it contains lectures, it would be a part of the next category (prerecorded academic aids). Again these materials have to be bought or hired. Any CDs or books obtained or used free of charge would not be a part of this category. There has been some research about shadow education that talks about shadow curriculum (Stevenson & Baker, 1992)

### 1.6. Prerecorded Academic Aids

This includes all the lectures, lessons, explanations or solutions which are prerecorded. They can be in form of prerecorded online lectures, CDs, audio messages or videos. Although, there seems to be some overlapping with some of the shadow curriculum as that also contains CDs etc, the clear distinction is that in shadow curriculum, the material is in textual form like eBooks. On the other hand, in prerecorded academic aids the information or knowledge is delivered through audio or video. They have to be listened or watched to be understood, not just read. They are put separately as the way material is received is quite different from the other two. Their impact is also different. As a result, it would be more logical to put them separately so that the findings about the impact and determinants can be clear and separated. There is not a lot of research under shadow education that focuses on prerecorded academic aids.

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

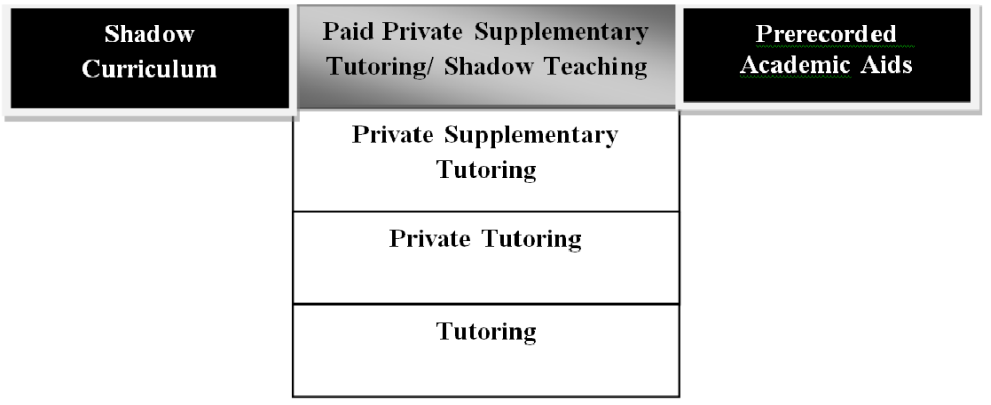
It is imperative to note that all of these activities have to be for profit-making. They should be bought, borrowed or hired with money for learning. It is argued that sometimes shadow curriculum or prerecorded materials are paid for or bought while some other times, they may be given or used free of charge. Some argue that it could cause confusions in the parameters and the boundaries. The same can be the case with tutoring; sometimes tutoring is paid while others it is free of charge. In this situation, when the services or materials are obtained or used free of charge, they are not a part of shadow education while when they are paid for, they are. Another argument is that some materials can be bought by one, and then given to others for free use. It could also cause confusions. In such situation, again it would be part of shadow education for those who pay for it while for others, it would be tutoring or supplementary lessons. This situation is not strange or even new as it takes place with paid private supplementary tutoring as well. Some students attend such lectures and record them. After that, they give those recorded lectures to their friends or even put them online for others to use (sometimes such audio or even video recordings are made without teacher's knowledge and permissions). In such situation even, the ones who originally pay for the lecture are considered to receive shadow education while for others these are just supplementary lessons.

Such classification will not only greatly decrease the confusions that arise as often the causes and effects of shadow teaching (paid supplementary academic coaching), for example, are taken as the causes and effects of shadow education as a whole (Bray & Lykins, 2012). In the opinion of the researcher, the causes, effects, cost and how they are received are different for all three categories mentioned above, but have close similarities within the group. Such division would make the research and the findings more clear and specific. Most of the students are believed to use some kind of shadow curriculum in form of

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

help books, solves exercises or guide books. If shadow education is defined as all activities and then it is said that only a certain percentage of the students use shadow education, the results are likely to be inaccurate. Most of the research that has been carried out about shadow education focuses on shadow teaching; and the participant also respond accordingly (Ireson & Rushforth, 2004; Zhang, 2014; Zhang & Bray, 2015). It would only be logical to develop these new subcategories for the clarifications of research findings.

Figure 3. Tutoring and its Relationship with the Subcategories of Shadow Education




This is also likely to eliminate some of the confusions which arise from the unclear relationships between shadow education and different kinds of tutoring. The relationship between shadow education and it its subcategories, and different types of tutoring is shown in *figure 3*. It is paid private supplementary tutoring that can be used in the same way as shadow teaching. Tutoring, private tutoring and even private supplementary tutoring are not part of shadow education system. On the other hand, shadow curriculum and prerecorded academic aids are not tutoring. but they are part of shadow education system as they have similar parameters (paid, supplementary and by the private sector).

BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

As the field has expanded and entered into new areas, there is a need to conduct research about shadow curriculum and prerecorded materials as well. The situation demands to investigate their spread, determinants and impact. They are increasingly used by the students for supplementation and even alternate to teachers. Their impact can no longer be denied or overlooked.

## REFERENCES


Aslam, M., & Atherton, P. (2012). *The Shadow Education Sector in India and Pakistan: The Determinants, Benefits and Equity Effects of Private Tutoring* (ESP Working Paper Series No. 38). Retrieved from http://www.periglobal.org/sites/periglobal.org/files/WP38_Aslam&Atherton.pdf

Baker, D. P., & LeTendre, G. K. (2005). *National Difference, Global similarities: World Culture and the Future of Schooling*. Stanford, California: Stanford University Press.

Baker, D. P., Akiba, M., LeTendre, G. K., & Wiseman, A. W. (2001). Worldwide shadow education: Outside-school learning, Institutional quality of schooling, and cross-national mathematics achievement. *Educational Evaluation and Policy Analysis,* 23, 1-17. doi:10.3102/01623737023001001

Borodchuk, N. (2011). *Shadow education: Quantitative and qualitative analysis of the impact of education reform (Implementation of centralized and standardized testing) on private tutoring in Ukraine* (LSE Working paper Series No. 11). Retrieved from http://www.lse.ac.uk/internationalDevelopment/pdf/WP/WP117.pdf

Bray, M. (1999). *The shadow education system: Private tutoring and its implications for planners.* Fundamentals of Educational Planning No.61, Paris: UNESCO International Institute for Educational Planning (IIEP).



BDD-A26992 © 2017 Sitech Publishing House
Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)

Bray, M. (2009). Conf*ronting the shadow education system: What government policies for what private tutoring?* Paris: UNESCO International Institute for Educational Planning (IIEP).

Bray, M. (2010). Researching shadow education: methodological challenges and directions. *Asia Pacific Education Review*, 11, 3–13. doi:10.1007/s12564-009-9056-6

Bray, M. (2014). The impact of shadow education on student academic achievement: Why the research is inconclusive and what can be done about it. *Asia Pacific Education Review*, 15, 381–389. doi:10.1007/s12564-014-9326-9

Bray, M., & Kobakhidze, M. N. (2014). Measurement Issues in Research on Shadow Education: Challenges and Pitfalls Encountered in TIMSS and PISA. *Comparative Education Review*, 58, 590-620. doi:10.1086/677907

Bray, M., & Kobakhidze, M. N. (2015). Evolving ecosystems in education: The nature and implications of private supplementary tutoring in Hong Kong. *Prospects*, 45, 465–481. doi:10.1007/s11125-015-9353-2

Bray, M., & Kwo, O. (2014). *Regulating Private Tutoring for Public Good Policy Options for Supplementary Education in Asia.* Comparative Education Research Centre (CERC)/ UNESCO, Bangkok Office.

Bray, M., & Kwok, P. (2003). Demand for private supplementary tutoring: conceptual considerations, and socio-economic patterns in Hong Kong. *Economics of Education Review*, 22, 611–620. doi:10.1016/S0272-7757(03)00032-3

Bray, M., & Lykins, C. (2012). *Shadow education: Private supplementary tutoring and its implications for policy makers in Asia.* Philippines: Asian Development Bank, Comparative Education Research Centre (CERC), the University of Hong Kong.

**BDD-A26992 © 2017 Sitech Publishing House**
**Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)**

Bray, M., Kobakhidze, M. N., Liu, J., & Zhang, W. (2016). The internal dynamics of privatised public education: Fee-charging supplementary tutoring provided by teachers in Cambodia. *International Journal of Educational Development*, 49, 291–299. doi:10.1016/j.ijedudev.2016.04.003

Buchmann, C., Condron, D. J., & Roscigno, V. J. (2010). Shadow education, American style: Test preparation, the SAT and college enrollment. *Social Forces*. 89(2), 435–462. doi:10.1353/sof.2010.0105

de Silva, W. A., Gunawardena, C., Jayaweera, S., Perera, L., Rupasinghe, S., & Wijetunge, S. (1991). *Extra-school instruction, social equity and educational equality (Sri Lanka).* Singapore: International Development Research Centre.

de Silva, W.A., Gunawardena, C., Jayaweera, S., Perera, L., & Dierkes, J. (2010). Supplementary Education: Global Growth, Japan's Experience, Canada's Future. *Education Canada.* 48(4). Retrieved from: http://www.cea-ace.ca/sites/cea-ace.ca/files/EdCan-2008-v48-n4-Dierkes.pdf

George, C. (1992). Time to come out of the shadows. Straits Times, 4 April, p.28.

Ireson, J,, & Rushforth, K. (2005). *Mapping and Evaluating Shadow Education*. Economic and Social Research Council Research Project RES-000-23-0117, Institute of Education, University of London.

Kobakhidze, M. N. (2014). Corruption risks of private tutoring: case of Georgia, *Asia Pacific Journal of Education*, 34, 455-475. doi:10.1080/02188791.2014.963506

Lee, C. J., Park, H. J., & Lee, H. S. (2009). Shadow education systems. In G. Sykes, B. L. Schneider, & D. N. Plank (Eds.), *Handbook of educational policy research* (pp. 901–919), New York: Routledge.

**BDD-A26992 © 2017 Sitech Publishing House**
**Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)**

Liu, J. (2012). Does cram schooling matter? Who goes to cram schools? Evidence from Taiwan. *International Journal of Educational Development*. 32, 46–52. doi:10.1016/j.ijedudev.2011.01.014

Marimuthu, T., Singh, J. S., Ahmad, K., Lim, H. K., Mukherjee, H., Oman, S., ... Jamaluddin, W. (1991). Extra-school instruction, social equity and educational quality. Singapore, The International Development Research Centre.

Medway, F. J. (1995). Tutoring. In L.W. Anderson (Ed.), *International Encyclopedia of Teaching and Teacher Education*. pp. 271-274. Cambridge: Pergamum.

Mori, I., & Baker, P. (2010). The origin of universal shadow education: what the supplemental education phenomenon tells us about the postmodern institution of education. *Asia Pacific Education Review*. 11, 36-48. doi:10.1007/s12564-009-9057-5

Silova, I., & Bray, M. (2006). *Education in at hidden marketplace: Monitoring of private tutoring.* Budapest: Education Support Program (ESP) of the Open Society Institute.

Southgate D. E. (2009). *Determinants of shadow education: A cross-national analysis* (Doctoral dissertation). Retrieved from https://etd.ohiolink.edu/!etd.send_file?accession=osu1259703574

Stevenson, D. L., & Baker, D. P. (1992). Shadow education and allocation in formal schooling: Transition to University in Japan. *American Journal of Sociology*, 97(6), 1639-1657. doi:10.1086/229942

Tok, T. N. (2013). The Shadow Education System: Private Courses. *International Journal of Social Sciences and Education*, 3(3), 619-634.

**BDD-A26992 © 2017 Sitech Publishing House**
**Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)**

Zhang, W. (2014). The demand for shadow education in China: mainstream teachers and power relations. *Asia Pacific Journal of Education*, 34(4), 436-454. doi:10.1080/02188791.2014.960798

Zhang, W., & Bray, M. (2015). Shadow education in Chongqing, China: Factors underlying demand and policy implications. *KEDI Journal of Education Policy*. 12, 83-106.

Zhang, Y. (2011). *The determinants of national college entrance exam performance in China- with an analysis of private tutoring* (Doctoral dissertation). Retrieved from https://academiccommons.columbia.edu/catalog/ac:131438

**BDD-A26992 © 2017 Sitech Publishing House**
**Provided by Diacronia.ro for IP 216.73.216.75 (2026-10-30 05:56:28 UTC)**