Background

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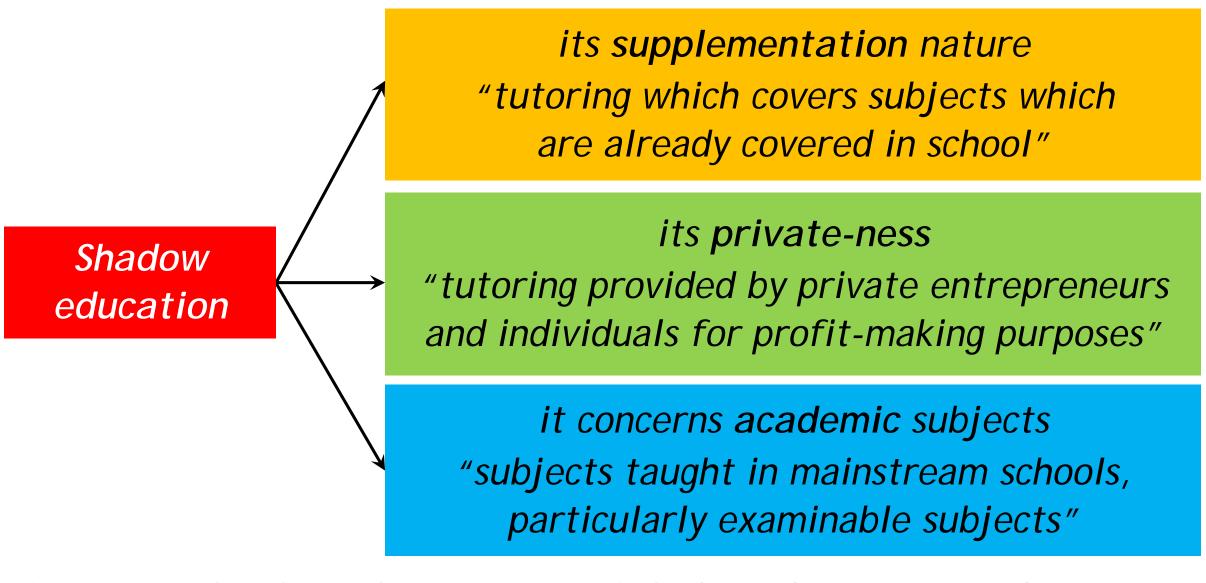
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Shadow education, which has historically been confined predominately to East Asia, is now spreading across the globe (Bray, Kwo & Jokić 2015; De Guzman, Rodriguez & De Castro 2018).

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**Diagram 1** The three characteristics of shadow education, according to Bray (1999).

The engagement of the shadow education system has wide implications on the mainstream education system while also impacting society in general as seen from studies done in many countries around the world (Bray 1999; Bray, Kwo & Jokić 2015; Silova, Būdienė & Bray 2006).

Researchers have posited that shadow education has a direct relationship to students suffering from symptoms of depression, anxiety and stress (Bhasin, Sharma & Saini 2010; Bray 2003; Deb, Chatterjee & Walsh 2010; Kim 2016).

#### Relevance

as illustrated in diagram 2. Using chi-squared test, the responses from the survey will first be compared with historical data to determine if there is growth of the industry in Malaysia. The responses of users and non-users of shadow education will then be analysed using linear regression, to determine if shadow education users experience more depression, anxiety and stress. The responses of the shadow education users will be further analysed using the four-step approach of Baron and Kenny (1986), to determine if lack of time arising from their education participation shadow in in their suffering a mediating factor depression, anxiety and stress.

The term shadow education was first coined in a study of the phenomenon in Malaysia (Marimuthu et al. 1991). However, little substantial research has been done in the field in Malaysia since then, which makes it difficult for comparative studies in the field and hinders the understanding of the phenomenon and its impact in Malaysia. This research seeks to better understand shadow education in Malaysia in general, and more specifically, the potential of shadow education as an indicator of depression, anxiety and stress among secondary school students in Malaysia. This research will collect data on the scale of shadow education, among other information, in Malaysia, thus

enabling further research to be carried out.

# Shadow education in Malaysia: The effect upon secondary school students' mental health

## Abstract

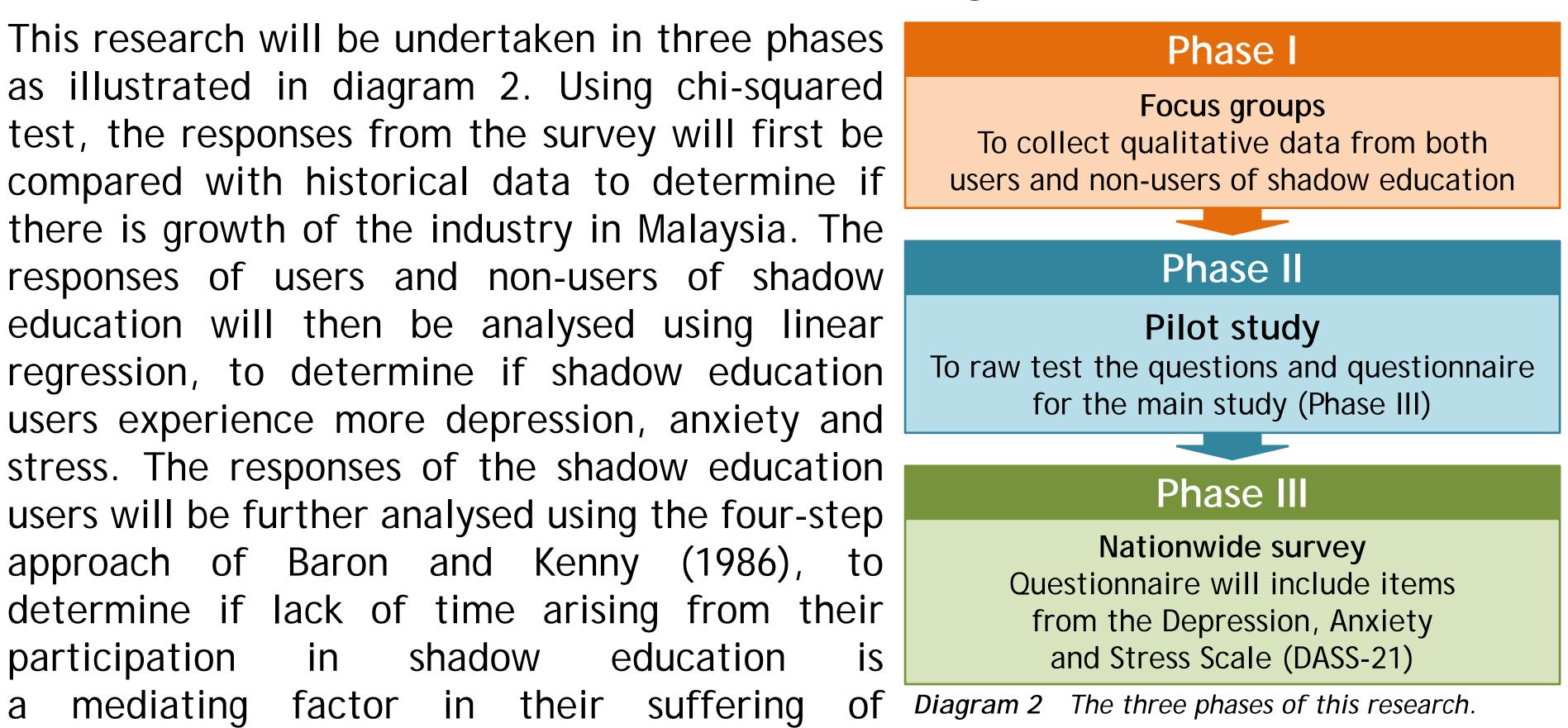
Shadow education is a growing industry. This phenomenon, also known as private supplementary education, has historically been confined to East Asia, but is now spreading across the globe. The growth of the shadow education industry bears wide implication for the mainstream education system, having an especially large potential impact upon students. This research examines the scale of shadow education to determine if shadow education is associated with depression, anxiety and stress among Malaysian secondary school students. The research will examine both direct associations, and indirect associations through depriving the students of free time, which would otherwise be available to them had they not attended private tutoring.

### **Research Questions**

- 1. In measuring the scale and characteristics of shadow education in Malaysia:
  - are utilising shadow education?
  - b. what is the attendance rate of shadow education among secondary school students in Malaysia?
  - c. what is/are the motivation(s) of secondary school students (and/or their parents) to utilise (and purchase) shadow education?
  - d. how has the overall landscape of shadow education developed over the last three decades?
- 2. To what extent is shadow education related to secondary school students in Malaysia suffering from symptoms of depression, anxiety and stress?
- 3. To what extent is the time consumed by utilisation of shadow education relating to secondary school students in Malaysia suffering from symptoms of depression, anxiety and stress?

### Research Design

a. what are the background characteristics of the secondary school students who



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#### Implications of Research

Shadow education

Better understanding of the phenomenon can guide policy-makers' in developing regulation of the shadow education industry.

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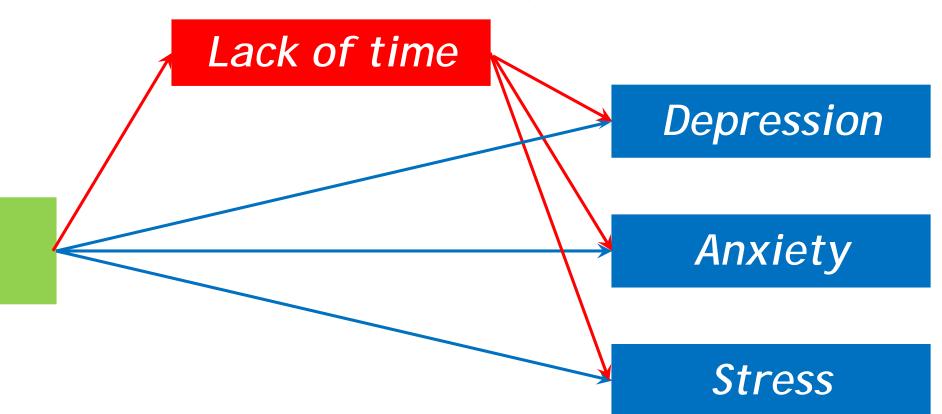
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1. This research will collect data to determine the scale and characteristics of shadow education in Malaysia, which will provide better understanding of the phenomenon.

2. This research also seeks to provide an in-depth understanding of shadow education's potential implications upon Malaysian students' mental health, namely the onset of depression, anxiety and stress, both directly and indirectly.



**Diagram 3** Shadow education as a potential source of depression, anxiety and stress to students, with lack of time as a potential mediating factor.