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Selina McCoy & Delma Byrne

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Shadow Education Uptake in Ireland: Inequalities and Wellbeing in a High-Stakes Context

By SELINA MCCOY, The Economic and Social Research Institute, Dublin 2, Ireland, Department of Sociology, Trinity College Dublin, Dublin 2, Ireland and DELMA BYRNE, Departments of Sociology and Education, Maynooth University, Maynooth, Ireland

ABSTRACT: This paper assesses the role of shadow education (SE), i.e., organised learning activities outside formal schooling, in the lives of secondary school students of different social backgrounds and in different school settings, in a high-stakes context. It draws on multilevel analysis of longitudinal Growing Up in Ireland data, alongside narratives from in-depth case study research in 10 schools. Framed within a social reproduction approach, we show how access to SE as an educational resource is socially stratified, accessible to those with greater levels of family resources, and those attending schools with higher socioeconomic student intakes. SE is viewed as an investment, particularly among students with average and above average levels of prior attainment, while high attaining students are less likely to use SE. Perhaps reflecting the normalisation of SE in the Irish context, students do not directly link engagement in such tuition to their socio-emotional wellbeing.

Keywords: shadow educationinequalitystudent voicehigh stakes testingacademic performancewellbeing

1. Introduction

Shadow education (SE) has become a growing presence in education systems in many European countries (Bray, 2020), including Ireland. The practice relates to fee-paying lessons in school subjects, delivered outside school hours, usually at secondary and primary school levels. These lessons are described as shadow education because to a large extent they imitate the mainstream: as the curriculum in the mainstream changes, so it changes in the shadow (Bray, 2020). Research has shown how temporal facets of SE help such businesses circumvent the schooling system to secure their space alongside – rather than by attempting to replace – the formal institutions of education (Gupta, 2022, p. 1). In doing so, SE has gained social legitimacy alongside formal educational institutions within the larger educational landscape (Gupta, 2022, p. 2).

The evidence on the role and impact of such tuition is largely mixed and narrowly framed; inconsistent, contradictory and even confusing (Byun, 2014). Zhang and Bray (2017) highlight a positive influence through an increase in student learning, but also note the multiple purposes of SE including employment/income for tutors/teachers: childcare for busy safe environment for teenagers (Manzon Areepattamannil, 2014; Tan, 2009). However, the dominant concern in the literature is the social stratification in the uptake of SE; crossnational comparative studies have consistently found that high socioeconomic status, household income and parental education are key determinants of the uptake of SE (Bukowski, 2017). Much of the research on the effects of SE is confined to academic achievement and progression to higher education. This narrow focus on academic performance outcomes has meant a neglect of the effects of SE on the motives and wellbeing of students. When wellbeing is a concern in existing empirical research, effects include the burden on students with heavy SE schedules on top of school; and its impact on reduced time for sports and leisure activities (Choi and Cho, 2015; Zhang and Bray, 2017).

This paper seeks to contribute to the existing scholarship on SE by addressing two key gaps in the literature. Firstly, the bulk of studies on SE have been conducted quantitatively and/or rely heavily on data collected from teachers, head teachers and parents (Hajar, 2018). In contrast, few studies consider students' situated experiences and their actual use of SE as a learning strategy (for exceptions see Hajar [2018] in the UK; Wai Ho Yung [2019] in Hong Kong; Forsey [2013] in Australia; Jokić et al. [2013] in Croatia, Bosnia and Heregovnia). This paper assesses the role of SE in the lives of Irish secondary school students of different social backgrounds and attending different school types, highlighting their situated experiences and reflections. Secondly, we seek to get beyond a narrow academic focus in terms of the impact of SE, to explore student motivation for engaging in shadow education, and how student wellbeing is shaped by the uptake of SE in a high-stakes context. This research comes at a time when young people in Ireland have higher than average levels of school work-related anxiety relative to other countries and stress among young people is heightened when sitting state examinations (OECD, 2019). Increasingly, sociologists are becoming concerned with how schools and educational processes are implicated in the development and exacerbation of mental health difficulties among young people (Eriksen, 2021). Our investigation is guided by three research questions:

- (1) What are the characteristics of students that engage in SE?
- (2) What motivates final year secondary students to engage in SE in advance of the terminal Leaving Certificate examination?
- (3) How do students reflect on such tuition in terms of their preparedness for the examination and for their broader wellbeing?

2. IRELAND AS A CASE STUDY: SHADOW EDUCATION IN IRELAND

Because of a diversity in SE provision (different formats, delivery mechanisms and intensities) across education systems, Entrich (2018) highlights the importance of the context in which SE takes place. Bray (2020) similarly notes that many of the features of SE, like mainstream education, reflect the specific historical and cultural features of individual countries and localities. Ireland represents an interesting case study to explore SE, as secondary students increasingly engage in privately paid tuition, colloquially known as 'grinds', for the most part provided either formally by 'grind schools', or informally on the private market on an individual basis. In Ireland, SE is embedded within a context of high-stakes examinations, whereby a push for higher Leaving Certificate 'points' (grades) that can be exchanged for higher education entry is a key driver for uptake. The most recent estimates suggest that almost half of Leaving Certificate students engage in grinds at some point during their final school year (McGinnity, 2012). Grinds can be delivered by for-profit enterprises, informally by teachers or retired education staff, as well as non-profit centres or schools. In the context of the pandemic, as in many countries, there are indications that SE has 'emerged from the shadows', exploiting technology to pivot from face-to-face tutoring to distance learning modes. This has enabled those with resources to ensure greater continuity in their education despite the closure of school buildings and abrupt shift to distance learning, which had varving levels of effectiveness (Mac Domhnaill et al., 2021). The Irish Government has explicitly acknowledged 'the advantage of the "cultural capital" available in better off families during the pandemic, where children may attend private revision schools/grind schools and, in the current crisis, benefit from additional online tuition from such private providers' (Government of Ireland, 2021). While online free to use (or nominal fee) resources have been made available, much provision is profit-driven, a market conservatively estimated at €60 m at secondary level in Ireland. In the UK, £2bn is spent on private tuition where over 2 m students sit secondary exams annually. By 2022, the global private tuition market was estimated to be at \$227bn (Silicon Republic, 2018).

The Social Stratification of Shadow Education

As in other institutional contexts, researchers in Ireland have highlighted SE as a mechanism that contributes to the reproduction of social inequality, accessible to those with greater levels of family resources, and those attending schools with higher socio-economic student intakes (Canny and Hamilton, 2018; Smyth *et al.*, 2019). There is also a gender dimension, as females are consistently found to be more likely to take grinds than males. While female students at upper secondary typically display on average higher levels of academic performance, they also show higher levels of reported stress prior to the exam which

may contribute to an enhanced demand for SE (McCoy et al., 2019; Smyth, 2009).

In other institutional contexts, low-achieving students are more likely to engage with SE than high-achieving students (Buchmann *et al.*, 2010; Byun *et al.*, 2018). However, because of data constraints to date, little is known in the Irish context about how *previous* educational attainment shapes the uptake of SE among final year students in second-level schools in Ireland. Our use of longitudinal Growing up in Ireland data will shed light on this.

Shadow Education and Performance Outcomes

Existing cross-sectional analyses of the relationship between the uptake of SE and performance in the Leaving Certificate is mixed. While some evidence suggests little performance gain from SE (Smyth, 2009), more recent analyses points to differential effects for low and high achieving students (Cullinan *et al.*, 2019), with gains for those at the lower end of attainment in the Leaving Certificate. Qualitative studies have found that students often report that an investment in grinds did not always pay off in terms of examination performance (McCoy *et al.*, 2010).

These findings align with international literature which has delivered inconclusive and even contradictory findings (Byun, 2014; Park *et al.*, 2016). Part of the reason lies in definitions and foci of the research, since SE may have different formats, delivery mechanisms and intensities, and is captured differently across surveys (Bray and Kobakhidze, 2014). However, evidence suggests that SE is a key determinant of higher education entry in Ireland, suggesting a specific role in enhancing pre-existing inequalities in educational performance (Cullinan *et al.*, 2013; Smyth, 2009). This reflects research in other institutional contexts, where there is a concern that SE is a key contributor to later inequalities in social and occupational status attainment (Buchmann *et al.*, 2010; Byun and Baker, 2015).

Student Motives for Grinds

Unlike much of the international literature, which draws largely from quantitative data, qualitative research on SE in Ireland places emphasis on student voice, and the situated experiences of young people. Among students from social groups that are under-represented in higher education, grinds and the use of SE is perceived to be important and useful, given their intensive focus on examination content (McCoy et al., 2010). Research has also shown the strong 'backwash' effect of the high-stakes terminal exam, with a narrowing of the range of student learning experiences and an intensity in focus among both teachers and students on 'covering the course'. In this context, students are increasingly instrumental in what and how they learn, and increasingly adopt

exam-focused strategies (Canny and Hamilton, 2018; McCoy et al., 2019). SE and the mobilisation of economic and social capital in acquiring such tuition plays a particularly prominent role in this high-stakes context (Canny and Hamilton, 2018). This back-wash effect has also been highlighted elsewhere when large proportions of students receive SE, teachers may assume that their students have supplementary support and make less effort than they would otherwise (Bray et al., 2016).

Nevertheless, studies often neglect to examine (a) how student motives, agency and experiences of the education system shape the uptake of SE and (b) how students perceive SE and its effects, gaps that are specifically addressed in this paper.

3. THEORETICAL FRAMEWORK

Byun *et al.* (2018) argue that although there is a growing body of research that examines SE, empirically investigating the determinants and effects of such tuition, much less attention has been paid in the sociological literature to theorising the decision-making processes of parents and students regarding the use of this tuition. For the most part, SE has been conceptualised in the sociological literature as both a form of human capital, and a form of cultural capital.

A number of studies view SE as a form of human capital accumulation, as a direct investment in the knowledge and skills of young people (Bodovski et al., 2019). Human capital theory (Becker, 1993; Schultz, 1961) posits that the development of human capital in schools (school achievement) is partly determined by effort. According to this view, those with greater levels of ability and talent acquire more education because of higher expected returns and productivity. As demonstrated by rising levels of uptake of SE in Ireland, one could assume that parents and young people believe that SE can increase student prospects of entering higher education and prestigious fields of study, and thus represent an investment. In terms of contributing to the decision-making processes of parents and students, a reasonable hypothesis guided by the human capital perspective is that that those with higher levels of previous attainment are more likely to engage in SE than lower attaining students. Thus, according to this view, SE represents a source of investment that can increase earning capacity in later life.

In contrast to human capital models, cultural capital (Bourdieu, 1986) and reproduction models place emphasis on how education systems promote inequality, whereby students from high socio-economic backgrounds and well-resourced families use the education system to build on their advantage. Thus, the advantaged create and reproduce the educational system in ways that serve their own interests and SE is viewed as a necessary commodity, to protect their power and ensure their own cultural capital. Because of the cost implication, families with more disposable income are better placed to reach these costs, as

are those with the knowledge of how to acquire this additional tuition. In terms of decision-making, through this lens, we can hypothesise that families that have more economic and cultural resources use SE for the advancement of educational opportunities for their children, irrespective of their level of previous attainment.

However, not all investments in SE are rational or completely determined by family resources, and the transmission of advantage is not necessarily automatic and guaranteed (Lareau et al., 2016). Theoretically, to better understand the decision-making processes of students and parents regarding the use of SE requires greater engagement with the institutional context and the field within which formal education and SE operate. Ireland's education system, particularly at senior cycle, is increasingly illustrative of the age of responsibilisation, where there is increasing personal responsibility on students and their families to produce good grades and good outcomes (Torrance, 2017). The high stakes nature of the Leaving Certificate seeks to both identify achievement and regulate competition, placing emphasis on students to comply with the process and compete for the rewards. In this process, higher grades must be continuously pursued to maximise outcomes. As highlighted by Lareau et al. (2016), the capital mobilised through actions and values of parents and children gain value only in a specific field (Bourdieu, 1986; Bourdieu and Passeron, 1977). Furthermore, the 'rules of the game' privilege some actions and some groups more than others. If middle-class students and their families struggle to master the rules of the Leaving Certificate game, then the rules may be even more challenging for working class and poor parents (Lareau et al., 2016). To this end, Jackson et al. (2019) differentiate between two mechanisms. Firstly, in a high-stakes context, families are engaged in test-directed investments, directed towards securing strong performance on a given high-stakes test, using a careful selection of schools and through the use of shadow education. Secondly, families are also involved in achievement-directed investments, or the development of general academic capacities over the lifecourse. In terms of decisionmaking, through this lens, we can hypothesise that families that invest in the general academic capacities of their children over the life course, through a process of concerted cultivation, use SE for the advancement of educational opportunities for their children, irrespective of their level of previous attainment

The social reproduction perspective has also recently been extended to the study of how schools and educational processes are implicated in how young people construct their wellbeing. For example, studies in China and beyond, have linked processes of concerted cultivation to wellbeing, via parent–child expectations, control and conflict (see for example Leung, 2020). Similarly, in the Nordic context Eriksen (2021) draws on the concepts of habitus and dispositions to inform how parents contribute to the regulation of school stress. It is argued that family dispositions shape how young people relate to school

and academic achievement. According to this perspective, in a field of high stakes examination coupled with increasing personal and familial responsibility for academic achievement, it is likely that dispositions and decision-making are increasingly focused on achievement directed returns to the detriment of young people's wellbeing.

4. RESEARCH DESIGN, DATA AND METHOD

This study adopts a sequential explanatory mixed-method design (Creswell, 2003), drawing on secondary analysis of quantitative and qualitative data. It represents a two-stage design in which secondary analysis of quantitative data is undertaken and complemented with secondary qualitative analyses (Creswell, 2003). The Growing Up in Ireland (GUI) study – the national longitudinal study of children and young people – is used to provide a general understanding of the characteristics of students in upper secondary education that engage in SE. The qualitative data and their analyses then 'refine and explain those statistical results by exploring participants' views in more depth' (Ivankova *et al.*, 2006, p. 5).

We draw on the first three waves of Cohort '98 of GUI. The GUI is the first national longitudinal study of childhood in Ireland. The study was commissioned and funded by the Irish Government and conducted by a research consortium led by the Economic and Social Research Institute (ESRI) and Trinity College Dublin (TCD). The study is a nationally representative sample of 9-year-old children living in the Republic Ireland in 2007. This paper draws on research microdata (RMF) obtained from the Central Statistics Office (CSO).

The firstwave of data collection took place between August 2007 and May 2008 when children were aged nine years (n = 8,568). The children and their families were then followed up at age 13 between August 2011 and March 2012 (wave 2) and again when they were 17/18 years of age (wave 3) between April 2015 and August 2016. At this point, 61% were in their final year of second level education. At 17/18 years of age, the sample represents the children/young people and their families who were resident in Ireland at 9 years of age and who were still living in Ireland by 17/18 years old, a fixed panel design. The response rate at 17/18 years of age was 81% of young people who took part at wave two (13 years old) (Murphy *et al.*, 2019). As some young people have already left school by age 17/18, the sample is restricted to those who were still in school and those who have sat their Junior Certificate, sitting examinations for at least 5 subjects (n = 5,375).

The dependent variable captures parent reports of the uptake of SE. Specifically, parents are asked to indicate whether they: (i) currently pay for grinds or private tuition, (ii) pay for grinds on an on-going basis throughout the year (every week/fortnight etc.), or (iii) pay for grinds on a block basis e.g.,

at holiday times (e.g., Easter). A binary dependent variable was created from all three questions, with 51% indicating that they paid for SE.

A key strength of GUI is the diversity of child, family socio-economic and school characteristics that it captures. As independent variables, a range of individual-level student characteristics are included: sex, whether the young person has a special educational need and the stage of upper secondary education. We also include grade point average based on previous attainment in the Junior Certificate when the young person was age approximately 16.

To account for student motives, agency and experiences of schooling, we include a binary measure of higher education expectations at age 17/18 indicating whether students have plans to pursue higher education. We also include a measure of the young person's personality at age 17/18 which is often unobserved in studies of the determinants of the uptake of SE, but has been shown to be correlated with educational attainment (Pan et al., 2022). A selfreport measure of the young person's conscientiousness using the Ten-Item Personality Inventory (TIPI) is used, combining responses to two statements 'I see myself as: dependable, self-disciplined' and 'I see myself as disorganised, careless'. Higher scores indicate higher levels of conscientiousness, and the measure allows us to tap into the relationship between young people's conceptualisation of their conscientiousness and the perceived need for SE. Given earlier evidence, we propose that more motivated, hardworking and selfdisciplined students are less likely to feel the need to engage in SE and less subject to peer pressure to do so in an environment where a majority participate (Bray and Kwok, 2003; Spielmann et al., 2022).

We use a range of measures to capture student wellbeing, including three which were statistically associated with the uptake of SE at the bivariate level. The first is a subjective measure of whether or not the young person consistently indicated that they 'always like school' between the ages of 9 and 13. The second is an objective measure of self-concept at age 13, using the 14item Piers Harris 'Freedom from Anxiety' sub-scale (scores 0-14) which measures the young person's evaluations of their anxiety and dysphoric mood at age 13 (Piers et al., 2002). Higher scores indicate higher levels of anxiety. Finally, given that young people often experience school stress and parental expectations of success (Eriksen, 2021), we include a measure of perceived degree of parental control. Young people were asked to indicate the degree to which parents place limits and rules on a range of their out-of-school activities. Higher scores indicate higher levels of perceived parental rule setting. This measure was operationalised in terms of the frequency that parents set rules concerning their whereabouts, activities, and friendships (Kerr and Stattin, 2000) using six items. Responses were measured on a scale ranging from 1 (almost never or never) to 3 (sometimes) to 5 (almost always or always), and responses were summed. Given earlier research on parental involvement and control and engagement in private tuition (Fernández-Alonso et al., 2017; Otto and Karbach, 2019), we propose that students who perceive higher levels of parental control may be more likely to participate in SE.

To account for achievement-directed investments during middle-childhood, we include the following measures of cultural capital: frequency of engagement in cultural activities and sports clubs, a binary measure of engagement in extra support for learning (in homework clubs and other academic pursuits) at any time between age 9 and age 13, and the number of books in the home at age 9. Each of these are well regarded indicators of cultural capital and concerted cultivation in the home (McCoy *et al.*, 2012a, 2012b).

To tap into the social stratification of access to higher education, we include multiple measures of family resources. Parental education is defined as the highest level of education of the primary caregiver. We include household income quintiles, differentiating between high-, medium- and low-income households. Finally, family social class is included, based on a fourfold Standard Occupational Classification used by the Central Statistics Office.¹

At the school level, we include a measure of school type, differentiating between secondary, ETB, community and comprehensive schools.² A binary variable is included to distinguish fee-paying schools from non-fee-paying schools. A measure of school socio-economic mix is included with a variable capturing the concentration of disadvantage in the school (DEIS status). Characteristics reflecting the sex-mix of the school and school size are also included.

Using a multilevel structure, capturing students within schools, we analyse the likelihood of using SE. The aim is to examine how individual, family and school characteristics shape the uptake of SEThe sample design of the GUI is based on a two-stage selection process in which schools were the primary sampling unit and children within the schools being the secondary sampling units. This sampling design allows us to take into account the clustering of students within schools, and the fact that grinds culture may be more common in some school contexts than others. This method allows for within-cluster correlation of errors, and results in more conservative standard errors and smaller t-statistics than those in an unclustered model, resulting in more reliable regression analyses.

In the second phase, the key focus of the research was on the student voice – students' own experience and perceptions of their schooling, drawing on semi-structured focus group interviews. Administrative data from the Irish Department of Education and Skills were used to identify 10 mainstream secondary schools for case-study analysis. A theoretical sampling frame focused on two key dimensions: social mix ('DEIS' status indicates schools selected as part of a priority education programme focused on schools serving socio-economically disadvantaged communities) and sex mix. Over and above these two dimensions, schools were selected to capture a variety in terms of school

Pseudonym	Type and Gender Mix	Size	Social Mix
Nore	Girls' Secondary	Medium	DEIS
Slaney	Vocational	Large	
Bann	Girls' Secondary	Large	
Corrib	Boys' Secondary	Medium	
Deel	Girls' Secondary	Medium	DEIS
Tolka	Vocational	Small	DEIS
Dodder	Community	Large	
Lee	Vocational	Large	DEIS
Bandon	Girls' Secondary	Large	
Finn	Boys' Secondary	Large	

Table 1: Characteristics of the case study schools

size (which is known to have an impact on ability grouping), sector and location.

In each school, two focus group interviews were conducted with groups of typically six final-year students, one group taking an advanced ('higher-level') mathematics programme, the other taking the standard ('ordinary-level') mathematics programme. In selecting mathematics level, it was intended that a diverse group of higher- and lower-achieving students would be included. The students were randomly selected by the school principal from each of advanced and standard mathematics classes and written consent from their parents was then sought (and provided before they could participate). Semi-structured rather than structured interviews were chosen, which afforded each participant the opportunity to relate his/her experiences and unique interpretations, unconfined by a more structured approach (Cohen *et al.*, 2007) (Table 1).

The focus groups with students explored:

- (1) Decision-making regarding subject standard chosen; sources of information and advice used; perceived 'risk' in programme level take-up (advanced versus standard programmes);
- (2) Exam preparation within and outside class; participation in SE role and impact of such tuition; perceived readiness for the Leaving Certificate exams:
- Perceived preparedness for further/higher education and the world of work.

The student voice is framed by evidence from school personnel (interviews with school leaders, teachers and Guidance Counsellors in each case study school), assessing practice, policy and ethos at the school and classroom level framing teaching and learning in the classroom and student decision-making. All interviews were carried out in March and April 2018 and were recorded, by consent,

and transcribed verbatim. Data analysis was carried out using NVivo, using a thematic analysis identifying themes directly and indirectly related to motivations, school experiences and perceived impact of SE (Braun and Clarke, 2021). In advance of the research, a detailed research plan was approved by a Research Ethics Committee, to ensure the highest standards were maintained (see McCoy et al., 2019). The data were gathered as part of a 2018 study for Ireland's National Council for Curriculum and Assessment examining the impact of changes in the Leaving Certificate grading scheme. One author was the lead researcher on this study and has full access to the data.

5. RESULTS

Characteristics of Final Year Students Engaged in Shadow Education

Descriptive statistics for participation in SE are presented in Table 2. Nearly 60% of final year students indicated that they were engaged in SE. This figure is at the upper end among figures reported across a diversity of European countries (Bray, 2020, pp. 4–6; Guill and Lintorf, 2019). The results point to social structuring in SE participation in Ireland, with participation ranging from 62% among students whose parents have achieved higher education degrees, relative to 36% where parents have no more than lower secondary education. The results also show that female students are more likely to engage in such tuition, as are those who plan to progress to higher education. The descriptive statistics for JC Grade Point Average, the Conscientiousness Score, Piers Harris Score and Parental Control Score are presented in Table 3.

To better understand the individual, household and school characteristics that distinguish upper secondary students that use SE from those who do not, Table 4 shows the results of the multilevel model of SE uptake. The results are reported in the form of odds ratios, where values greater than one indicate a higher likelihood of using SE compared to not, and values less than one indicate a lower likelihood. Females are 1.2 times more likely to use SE than males. This is also true of students who have been diagnosed with a special educational need (SEN), also 1.2 times more likely to do so than students than those without a SEN. As expected, final year students are almost three times more likely to use SE, than all other year groups. In terms of previous educational performance, those with higher Junior Certificate grade point averages are more likely to use SE than those with the lowest levels of attainment. However, all else being equal, the group with the highest Junior Certificate grade point average does not differ in their chances of using SE than those with the lowest. This finding suggests that decision-making around SE is viewed as an investment, particularly among students with average and above average levels of prior attainment, while high attaining students are less likely to use SE, replicating findings in other institutional contexts (Buchmann et al., 2010; Byun et al., 2018).

Regarding student motives, those with plans to progress to HE after school are 1.5 times more likely to use SE than those who do not, while those with

Table 2: Descriptive statistics: percentage participating in SE

	%
All	51.1
Individual	
Gender	
Female	55.4
Male	47.7
Special Educational Need	
SEN	52.0
No SEN	48.8
Upper Secondary Stage	
Final Year	59.1
Other Year	39.3
Junior Certificate GPA	
Q1 (low)	35.2
Q2	52.0
Q3	61.7
Q4	61.2
Q5(high)	57.3
Achievement-Directed Activities	
Cultural Activities	
Cultural activities age 9 & 13	61.6
Cultural activities age 9 only	55.2
Cultural activities age 13 only	44.2
No cultural activities	43.0
Sports Activities	- 4 4
Sports activities age 9 & 13	54.4
Sports activities age 9 only	49.6
Sports activities age 13 only	42.9
No sports activities	40.9
Extra support for learning between age 9 & 13 Yes	44.8
No	51.7
Books in the home	31.7
Less than 10	35.4
10–20 Books	46.1
21–30 Books	50.0
31+	54.8
Student Wellbeing & Motives	54.0
Attitudes toward school between age 9 & 13	
Always liked school	53.6
Less favourable attitudes	50.7
HE Expectations	00.7
YP expects to go to HE	55.5
YP does not expect to go to HE	34.7
Family Characteristics	
Parental Education	
Higher Education Degree+	62.0

(Continued)

Table 2: (Continued)

	%
Third Level Non-Degree	56.8
Upper Secondary/Vocational	50.9
Lower Secondary or Less	36.0
Parental Social Class	
Professional/Managerial	60.2
Non-Manual/Skilled Manual	49.7
Skilled/Unskilled Manual	38.9
No Social Class	38.6
Household Income	
Household with High Income	68.1
Household with Middle Income	53.5
Household in Income Poverty	37.5
Household Income Unknown	53.5
Migrant Family	
Yes, young person second generation	52.1
No	48.6
School Characteristics	
School Gender Intake	
Female single sex	58.1
Male single sex	52.9
Coeducational	48.4
School fee-structure	
Fee-paying school	68.8
Non-fee-paying school	49.5
School socio-economic intake	
Non DEIS	53.9
DEIS	37.6
School size	
600+	55.4
400-599	48.3
200–399	47.8
<200	39.9
School Sector	
Secondary	55.5
Community	48.3
Vocational	45.9
Comprehensive	37.8

higher conscientiousness scores are less likely to use SE than those with lower scores. This may reflect that those with tendencies towards conscientiousness are less influenced by the grinds culture. Among our wellbeing variables, only attitudes towards school reached statistical significance; those who always liked school between the ages of 9 and 13 are more likely to use SE than those who had less favourable attitudes towards school. While it approached statistical

Metric Variables	Full Sample Mean	SE Mean
JC Grade Point Average	8.0	8.1
Conscientiousness (age 17/18)	6.0	5.2
Piers Harris Freedom from Anxiety Score (Age 13)	10.8	10.7
Young Person report Parental Control	21.1	21.3

Table 3: Descriptive statistics: average participating in SE

significance, the model suggests that higher levels of young person-reported parental control are associated with a greater likelihood of using SE. What was surprising was that measured anxiety at age 13 is not a predictor of using SE by age 17/18. Student attitudes towards school and parental academic motivation rather than anxiety shapes the uptake of SE. Young people and their parents turn to shadow education because of the high stakes nature of the Leaving Certificate, and drive to achieve points, rather than to relieve stress and act as a 'nerve sedative'.

In line with our hypotheses about achievement-directed investments, those who participated in cultural and sporting activities sporadically or not at all between the ages of 9 and 13 are significantly less likely to use SE than those who participated in these activities at both time points. Drawing a clear line between earlier and later investments, this finding shows that achievement-directed investments across the lifecourse are a precursor for later test-directed investments

As expected, parental education, parental social class and household income matter – young people whose parents are early school leavers are less likely to use SE than students whose parents have higher levels of education. Those living in very low-income households (below an income poverty threshold) have a lower likelihood of using SE than all other households, while those in high income families (highest income decile) are almost 1.4 times more likely to use SE. All social class groups are less likely to engage with this tuition than young people from a higher professional/managerial class. These findings suggest that families that have more economic and cultural resources use SE for the advancement of educational opportunities for their children, irrespective of their level of previous attainment.

When adjusting for the clustering of students within schools, the school type attended bears little influence on the use of SE. However, the odds ratio for young people attending DEIS schools did approach statistical significance, suggesting that young people attending schools with a high concentration of students from lower socio-economic backgrounds have a lower likelihood of using SE than those attending schools with more affluent student intakes (consistent with research from other countries (Matsuoka, 2015)).

Table 4: Binary logistic regression model of the factors associated with parents' paying for shadow education (odds ratios)

Individual Characteristics	
Female	1.2*
Ref: Male	(0.117)
Special Educational Need	1.2*
Ref: No SEN	(0.107)
Final Year	3.0***
Ref: Other Senior Cycle	(0.199)
Q2 JC GPA	1.3*
Q2 3C G171	(0.131)
Q3 JC GPA	1.6***
Q5 JC GIA	(0.176)
Q4 JC GPA	1.4**
Q4 JC GFA	
OF IC CDA (High)	(0.157)
Q5 JC GPA (High)	1.1
Ref: Q1 JC GPA (Low)	(0.125)
Student Motives	1 5 ala ala ala
Student has HE Expectation	1.5***
Ref: No HE Expectation	(.144)
TIPI Conscientious score	0.9*
	(.026)
Young Person Wellbeing	
Always likes school Age 9 & Age 13	1.3*
Ref: Less positive	(.131)
Piers Harris Anxiety Score Age 13	1.0
	(.011)
Parental Control score	1.01
	(.005)
Achievement-Directed	
Cultural activities age 9 only	0.810**
5	(0.069)
Cultural activities age 13 only	0.649***
	(0.081)
No cultural activities	0.583***
Ref: Cultural Activities age 9 & 13	(0.052)
Sports activities age 9 only	.810*
sports detivities age 7 only	(.082)
Sports activities age 13 only	.760**
Sports activities age 15 only	
No sports activities	(.079) .661***
No sports activities Ref: Sports activities age 9 & 13	(.082)
	(.062)
Extra support for learning age 9 or 13	1.0
Yes	1.0
Ref: No academic support	(.120)
Books in the Home	1 54
10–20 Books	1.5*
	(.231)

(Continued)

Table 4: (Continued)

Table 4. (Continued)	
20–30 Books	1.5**
20 - Backs	(.238) 1.5**
30+ Books Ref: <10 Books	
Parental characteristics	(.211)
Lower Secondary or Less	0.7**
Zewer secondary or Zess	(.094)
Upper Sec/Vocational	0.9
**	(.080.)
Third Level (non-degree)	1.0
Ref: HE Degree or Higher	(.088)
Parental social class	
Non-Manual/Skilled Manual	0.9*
C H 111. 1 M 1	(.069)
Semi-Unskilled Manual	0.8*
Social Class Unknown	(.098) 0.8**
Ref: Prof/Managerial	(.088)
Parental income	(.000)
Income Poverty	0.7***
3	(0.072)
High Income	1.4***
	(.123)
Income unknown	1.2
Ref: Middle Income	(.152)
Family Migrant History	0.8***
Second generation	(.059)
School characteristics	(.039)
Male single sex	1.1
Male single sex	(.133)
Female single sex	1.0
Ref: Coeducational	(.129)
DEIS School	0.8^
Ref: Non-DEIS School	(.101)
Fee-paying school	1.2
Ref: Non-fee-paying school	(.162)
Small school	0.9
Medium school	(.095) 0.9
Ref: Large school	(.07)
Vocational	0.9
Vocational	(.117)
Comprehensive	0.7
-	(.185)
Community	1.0
Ref: Secondary	(.141)
Constant	0.5***

(Continued)

Table 4: (Continued)

	(.183)
5,149 Pupils	(.163)
593 Schools	
Estimate	.170
Standard Error	.044

Exponentiated coefficients; t statistics in parentheses *p < 0.05, **p < 0.01, ***p < 0.001

Motivation for Engaging in Shadow Education

Many participants in both sets of focus groups, across schools of varying social mix, report using SE, although in line with the quantitative results the prevalence appears higher for those taking the advanced programme. Students report particularly high levels of participation in grinds for mathematics, but other subject areas are frequently noted. Students highlight the role of grinds in revising content in a context where teachers struggle to complete courses by the end of term. This is particularly the case for the advanced mathematics course, where the workload is considered 'the work of two subjects' (Focus group, Slaney).

... I think Maths ... if there was one chunk of Maths taken off or a lesson down or something, so that you could finish the course April, May ... start of May latest, but like the way we're going now, we're not finishing until ... The very end ... so you've no revision ... That's why I feel like all of us are, kind of, grinds are the only option, really. (Focus group, Nore)

Students across many schools emphasise that there is insufficient time available to revise material, given the extensive course content. Teachers also acknowledge this and, for some subjects at least, course breadth is such that completing everything in advance of the exams is challenging, leaving little opportunity for revision. Some also acknowledge challenges in completing courses within classroom time, 'I can't work miracles in the classroom' (Teacher, Slaney), providing an explicit acceptance of the rationale for students engaging in SE.

Other students highlight the importance of the teacher providing clear and detailed explanations in mathematics, which isn't the same requirement for other subject areas:

The thing about maths, is like you can't go to the book and find the answer because every single question is so different. So you actually need a teacher to show you every different question.... Other subjects you can kind of like read the book and teach yourself but with maths you can't. (Focus group, Slaney)

Students repeatedly reflect positively on grinds, seeing them as 'really helpful', 'so important' and 'very useful'. A theme that emerged consistently related to

the benefits of the individual, one-to-one focus, that private tuition provided for many engaging in SE.

Because the teacher can do their best in maths, but you're ... more than likely you're not going to grasp everything, because you're working with the whole class, but once ... it takes a much shorter time for me to in grinds to actually fully grasp it. (Focus Group, Corrib)

Yes, they're [grinds] very useful ... It's good that it's one-on-one, because you can – everyone obviously has very different things, then you can ask. The things you aren't good at. Whereas if you were in a full class, you don't want to be wasting time on things that everyone else in the class can do. (Focus Group, Lee)

A particularly strong sentiment across many schools, students see SE teachers as teaching to the test and highlighting the most relevant course content, often with notes providing valuable tailored content. SE assumed a taken-for-granted status, part of the process of exam preparation:

So like the teacher might do it one way and then your grind teaches you a different way and like you can choose which one suits you better. And it cuts out like excess material as well... Like, you don't need to know that, don't learn this, this is what you need to do, this is how you get it... Yeah, it would be very exambased studying... you kind of have to learn to do an exam not to necessarily understand what you're writing as much. (Focus Group, Bann)

A number of teachers were themselves providing private tuition to students after school hours, noting increasing demand over time.

Perceived Impact of Shadow Education: How the Uptake of SE Shapes Young People's Wellbeing

Students convey mixed feelings about the impact of grinds on both their learning experiences and their broader wellbeing. Across several focus groups students highlight the importance of SE in mastering subject content, and point to difficulties in receiving the required individualised teaching in the classroom context. For many, engagement in grinds was directly linked to learning, or at least learning for the test.

- Q: And in what way? In what way are they [grinds] helpful?
- A: [They] Help you understand it more, like, when you're doing it in school sometimes you're, like, you have to move fast, so you don't get to look at everything in detail but then in grinds, like, they go back over stuff maybe you didn't understand when you did it first.
- A: It's easier to focus on the things, like, you don't understand, when there's only, like, you and two or three other people as opposed to, like, 30 in a class.
- A: You get, like, the reasoning behind what you're trying to get at instead of just looking at numbers and different things there. (Focus Group, Finn)

Many students value this narrow focus, emphasising content most relevant for the examination and enhancing their chances of a strong performance in that examination. In many ways, the grinds culture has become normalised, an accepted component of examination success for many students, as highlighted elsewhere 'shadow education becomes more prevalent as an accepted and expected cultural aspect of education' (Byun and Baker, 2015, p. 4).

Students spoke widely about the high-stakes nature of the examination and the implications for their stress levels, particularly in the months preceding the examination when the fieldwork took place (McCov et al., 2019). However, and perhaps reflecting the normalisation of grinds, students don't directly link engagement in grinds to their socio-emotional wellbeing. While engagement in such tuition may have the effect of fuelling stress levels, and propelling the 'points race', for some it may reduce stress through greater levels of exam preparedness. While students did talk of high stress levels, and the pressure to perform highly, many felt their stress levels were elevated but manageable. Students in Bann school concluded 'it's not as bad as I thought it would be ... I thought the stress would be a lot more obvious'. However, teachers and guidance counsellors spoke about high stress levels among some students and that 'stress is self-imposed on the number of students who are highly stressed' (Guidance Counsellor, Nore). This was particularly highlighted in single-sex girls' schools. One principal suggested that while stress levels are higher among girls, boys are more likely to disengage 'girls may get very, very nervous but boys completely disengage. And they disengage because it's a garbage curriculum, that's so reliant on rote learning, that they're not interested' (Principal, Deel). Intensive engagement in SE may be contributing to high stress levels, but students themselves don't make this connection, seeing it as simply necessary. much like participation in paid employment is a necessity for many, with its own implications (McCoy and Smyth, 2007). Students do however make conscious decisions to drop or reduce participation in leisure activities during the upper secondary years, likely signalling a zero-sum effect. In a way, these broader concerted cultivation activities have a shelf life, and are discontinued (or paused) by many in the year(s) leading up to the terminal exam. Such decisions further highlight the clear prioritisation of academic activities, with knock-on effects for wellbeing. A sentiment expressed by one student in a school serving a socio-economically disadvantaged population, was echoed widely: 'I quit all my sports this year. I played a load of sport but I quit them all' (Lee). Hence, SE appears to be displacing important leisure activities, which may leave students exhausted and less focused when attending mainstream lessons.

Schools are increasingly alert to the importance of supporting students' wellbeing, and developing their coping strategies and resilience, so this may be ameliorating exam-related stress among recent (pre-COVID-19) cohorts (Dempsey and Burke, 2019). One small school reflected on a recent

Department of Education inspection which observed 'an ethos of care permeating at this school' (Principal, Tolka), while another emphasised 'the importance of [students] minding themselves, and if they feel that they're getting anxious and stressed, to come and see me. So, we kind of take that approach to it rather than waiting until the bubble bursts sort of thing' (Guidance Counsellor, Dodder). Another teacher observed '... it's not just about academic anymore, that it's about ... the whole person spiritually, psychologically ... [there are] so many support structures here' (Teacher, Finn).

While students spoke with familiarity in relation to SE, some teachers were less comfortable about the role and impact of this grinds culture. A number spoke about a distrust of classroom teachers in favour of grinds teachers and felt that the culture of grinds negatively impacts student engagement within the classroom setting. Bray (2020) similarly pointed to the potential for conflicts in pedagogical approaches when tutors teach a subject in one way but the teachers teach it in another way.

There's a culture of grinds as well, you see. It's, 'Oh, I'll get them a grind' ... And I think unfortunately at higher-level maths everyone seems to feel they need to get a grind ... I don't think it's good. You should learn what you need to learn in class and, you know, if you can perform at that level. They're pushing the standard up for themselves. They don't seem to realise. (Teacher, Nore)

Sometimes it's the students who are not getting the grinds will make more effort in class, will get more out of the class. (Teacher, Nore)

The competitive examination system, with performance dictating higher education and other opportunities, also shapes how young people influence each other and teachers observed peer pressure in pushing students towards SE.

I worry that they're putting themselves under pressure that, like, 'Oh, I'm getting grinds in home economics. Should I be getting grinds in home economics?' 'No, no, you're fine, you're happy, you're doing it really well. You don't need it'. Sometimes there is that pressure, you know. If somebody – if A is getting it then B wants to get it but they might not necessarily need it. (Teacher, Tolka)

Finally, while many students spoke about grinds being an accepted part of their upper secondary education, they also conveyed an acute awareness of the inequalities inherent in this system and the advantages these activities bestow on many students.

As soon as you have to get grinds for it, you are automatically isolating a group of the Irish population who can't afford grinds. Grinds aren't cheap and it's not fair.

No, not everyone can afford them, and I think it's a bit unfair that if you want to do well, you have to go and get grinds. (Focus Group, Lee)

We shouldn't have to get grinds, though. Like, I don't get them, because I wouldn't have the money to pay for grinds all the time. (Focus group, Deel)

6 DISCUSSION

Like other western European countries, our evidence points to a normalisation of SE, reflecting the high stakes nature of our secondary education system, as well as 'the marketization of education which has become more socially acceptable in these countries' (Bray, 2020, p. 6). That nearly 60% of final year students are engaging in such tuition raises questions over the Irish educational system. In contrast, SE is relatively small in scale in Scandinavia, which Bray (2020) argues seems to imply that families are happier with the nature of the provision by the schools than are their counterparts elsewhere in Europe. With reference to Finland, for example, analysts have highlighted the social trust in the government and the public education system, which operates effectively and serves all sectors of the population (Bray, 2020, p. 23; Niemi *et al.*, 2016). The results highlight the power of the high stakes terminal examination with students turning to grinds to maximise their grades. Students clearly emphasise the role of SE in examination preparation – valuing the narrow focus on content, strategies and tips for success.

Our evidence points to wide social differentials in participation in SE in Ireland – not just social class, but also a product of motivation and expectation. In taking a mixed method approach, we argue it is central to understand students' embodied experiences. Students acted agentively – reflecting both on the direct role of SE in a high stakes examination system, and on its disadvantages in terms of the financial burden placed on parents and the inequalities it reproduces. However, some young people lack agency and are propelled towards grinds culture by parents (parental control) and most likely social norms (class effects etc). High achievers and those who display greater tendencies towards conscientiousness seem to be less influenced by the grinds culture.

The mixed method evidence from the Irish context provides a valuable lens on the role and impact of SE in a high stakes system. Students highlight how the grinds culture has become normalised, and in doing so, they don't connect exam-related stress and their wellbeing more generally with the demands created by (intensive) SE engagement. For the most part, the grinds culture seems to supplement mainstream educational provision, with students and teachers highlighting the challenges in completing courses within the allocated time. However, teachers also point to challenges stemming from duplication. Crucially, the evidence allows an assessment of which students are participating - and whether it is supporting those who are struggling/performing below average or serving those already performing well. In common with other countries, we find that 'shadow education is much less about pupils who are in real need gaining support that they cannot find at school, and much more about maintaining the competitive advantages within schools of the already successful and privileged' (Bray, 2020, p. 26).

Our data were gathered just before the pandemic, but COVID-19 and the abrupt shift to distance learning has also shaped the opportunities for large-scale SE providers in particular. SE has likely provided those with the financial means opportunities to complement the mainstream learning experiences of their children and compensate for variations in schools' effectiveness in supporting student learning (Mac Domhnaill *et al.*, 2021). As indicated by Zhang and Bray (2020, p. 327) 'Fault-lines were exposed by the COVID-19 pandemic that hit at the beginning of 2020, with many face-to-face tutoring enterprises closed alongside schools but ones employing technology for distance learning experiencing a sudden boom'. They argue that the pandemic brought shadow education 'out of the shadow'.

SE poses particular challenges for policymakers. As in many western education systems, 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 (Byun, 2014). The key challenges for Ireland relate more directly to reform of upper secondary education and reducing the imperative for students to maximise grades in a system focused on rote learning to the neglect of higher order thinking and broader skill development. Recent announcements aiming to spread assessment over the course of upper secondary education and introduce greater diversity in assessment approaches may reduce these incentives (NCCA, 2022).

A number of commentators have highlighted the need for more macro-level regulations, guidelines and codes of conduct. Bray (2020, p. 27) suggests a need for research on a comparative analysis of regulations. While England has almost no regulations on tutoring, particularly when provided by individuals, while other European countries, including in Eastern Europe, are more advanced. He suggests that 'A strong case can be made for prohibiting teachers from providing additional fee-generating tutoring for pupils for whom they already have responsibility in education systems; and in systems where teachers are paid adequately, a case can be made for prohibiting all teachers in the public education system from undertaking additional private tutoring' (Bray, 2020, p. 21). However, large-scale for-profit providers are gaining an increasing presence in Ireland, as elsewhere, so restrictions on the activities of mainstream teachers will have little impact for this sector.

The evidence further highlights the importance of targeted supports and resources for schools serving more socio-economically disadvantaged populations, and prompts questions over funding for priority education policies in Ireland. Persistent achievement gaps between DEIS and non-DEIS schools have been well-documented, and differential engagement in SE may be reinforcing these gaps. Carroll and McCoy (2021) point to the need to ask whether this is the level of funding we are willing to commit to tackling educational

disadvantage in schools and, by extension, whether this is the level of inequality we are willing to tolerate as a society.

7. LIMITATIONS

SE provision varies in terms of the mode of delivery, level of individualisation, qualifications and experience of the tutor/teacher, cost, and students will vary in terms of their intensity of engagement. Unfortunately, neither the survey nor qualitative evidence provides this information.

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9. DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

10 Notes

- Where neither the primary or secondary care givers has a relevant employment work history outside of the home, social class cannot be assigned, and this group are referred to as 'never employed'.
- ² These schools have different origins and management structures, with larger numbers of single-sex and denominational schools in the secondary sector (see Mac Domhnaill *et al.*, 2021).

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Correspondence

Selina McCoy

The Economic and Social Research Institute, Whitaker Square, Sir John Rogerson's Quay, Dublin 2 D02 K138, Ireland.

Email: Selina.McCoy@esri.ie Twitter: @MccoySelina