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Shadow Education uptake among final year students in secondary schools

in Ireland: Wellbeing in a high stakes context

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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 socio-economic 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 education; educational disadvantage; student voice; terminal examination; academic performance; wellbeing

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Growing Up in Ireland

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School Study

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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 socio-economic 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.

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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, at secondary and primary school levels. Following earlier literature, 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 (Ibid, p.2).

The evidence on the role and impact of such tuition is largely mixed and narrowly framed. Zhang and Bray (2017) highlight a positive influence of SE in terms of an increase in student learning, but also note the multiple purposes of SE including employment/income for tutors/teachers; childcare for busy parents and a safe environment for teenagers (Manzon and Areepattamannil 2014; Tan 2009). However, the dominant concern in the literature is the social stratification in the uptake of SE, which is accessible to some students but not others. To this end, cross-national comparative studies have consistently found that high socio-economic 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. Yet, it is argued that empirical evidence has been inconsistent, contradictory and even confusing (Byun 2014). Furthermore, a narrow focus on academic outcomes has often neglected the effects of SE on the wellbeing of students. When wellbeing is a concern, effects include the burden on students with heavy SE schedules on top of school; and its impact on 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, to date, the vast majority of research 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, Soldo and Ristić Dedić in Croatia, Bosnia and Heregovnia [2013]). This is in

contrast to the Irish context where research on SE places emphasis on student voice, and the embodied experiences of young people. Thus, 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 embodied experiences and reflections. Secondly, we seek to get beyond a narrow focus on the impact of SE on academic performance, extending our focus to how student wellbeing shapes and 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 compared to young people in other country contexts and that 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). Here, we examine the relationship between wellbeing and shadow education and consider our findings and their implications for educational reform. Our investigation is guided by three central 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?

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. A grinds culture has become normalised over the last decade or so, stemming from the high stakes nature of the secondary school assessment system. In the context of the pandemic, as in many countries, there are indications that SE has 'emerged from the shadows', with many of the larger providers switching to online modes of provision. This is enabling those with resources to ensure greater continuity in their education despite the closure of school buildings and abrupt shift to distance learning, which had varying levels of effectiveness (Mac Domhnaill, Mohan and McCoy, 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).

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 senior cycle year (McGinnity 2012; Smyth, Banks and Calvert 2011). Grinds can be delivered by for-profit tutoring groups, informally by teachers or retired education staff, as well as non-profit centres or schools. In response to the pandemic, SE has exploited technology to pivot from face-to-face tutoring to distance learning modes. Illustrative of the prevalence in uptake of grinds, parents in Ireland have unsuccessfully lobbied in the

past for the government to provide tax breaks for SE, as in Sweden (Irish Times 2003; Karlsson, Hallsén and Svahn 2019). Teachers are also key players in the provision of SE. As well as 'grind schools' a substantial private market for individual tutors and oneto-one tutoring exists in the Irish context, typically at a cost of \in 30- \notin 50 per hour. While such income among teachers in the Irish context is legally required to be declared to the tax authority, SE is also likely to operate on the informal 'black economy'. While the SE market is largely profit-driven, online free to use (or nominal fee) resources have also been made available. Commentors suggest that the grinds market in Ireland is conservatively estimated at \notin 60m at secondary level. In the UK, £2bn is spent on private tuition where over 2m students sit secondary exams annually. By 2022, the global private tuition market is estimated to be at \$227bn (Silicon Republic, 2018).

The Social Stratification of Shadow Education

As in other institutional contexts, SE has attracted considerable attention among researchers in Ireland. Much of this research highlights SE as a mechanism that contributes to the reproduction of social inequality in the experience of schooling (Smyth, McCoy and Banks 2019; Banks, Byrne, McCoy and Smyth 2010; Canny and Hamilton 2018; Lynch and Moran 2006; Lynch and O'Riordan 1998; Smyth 2008; Smyth, Banks and Calvert 2011), highlighting 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 socio-economic student intakes. 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; Hannan et al., 1996; Smyth 2009).

In other institutional contexts, low-achieving students are more likely to engage with SE than high-achieving students (Buchmann, Condron, and Roscigno 2010; Byun, Chung, and Baker 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. Smyth (2008, 2009) shows that when comparing like with like, SE does not result in a performance advantage on average in the Leaving Certificate. Rather than viewing SE as a key mechanism for the reproduction of inequality in education, she argues that SE reflects how the presence of a high-stakes competitive examination system shapes family spending. Other cross-sectional analyses report that extra private tuition has differential effects for low and high achieving students (Cullinan, Denny and Flannery 2019). They provide evidence to suggest that extra private tuition supports the achievement of those at the lower end of attainment in the Leaving Certificate (those at the 20th and 40th percentile) but not those at the higher end of attainment (those at the 60th and 80th percentile). Qualitative studies have found that students often report that an investment in grinds did not always pay off in terms of examination performance (Byrne and Smyth 2010; McCoy et al., 2010).

These findings generally support the 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 are captured differently across surveys (Bray and Kobakhide 2014). There is, however, evidence to suggest 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 2008, 2009). This reflects research in other institutional contexts, where there is a concern that SE is key contributor to later inequalities in social and occupational status attainment (Buchmann, Condron, and Roscigno 2010; Byun and Baker 2015).

Student Motives and Wellbeing

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 embodied experiences of young people. From the student perspective, and in particular 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; Smyth and Banks 2012).

Placing SE in the context of upper secondary education, research has shown the strong 'backwash' effect of the high-stakes terminal second level Leaving Certificate 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' (Smyth, Banks and Calvert 2011). In this context, students are increasingly instrumental in what and how they learn, as students increasingly adopt exam-focused strategies (McCoy et al., 2019). 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). As they

approach the exam, many students, especially highly ambitious young people from middle-class backgrounds, become more instrumental in their focus, equating good teaching with 'teaching to the test'. 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; Smyth and Banks 2012).

Nevertheless, studies often neglect to examine how (a) student motives and wellbeing shape the uptake of SE and (b) how the uptake of SE shapes young people's wellbeing, a gap this paper specifically addresses. While some exceptions exist, few studies have examined the uptake of SE as a response to student wellbeing. When student wellbeing is considered, the findings are contradictory. On the one hand, Choi and Park (2016) found in Korea that the students who are more likely to use SE are more advantaged in terms of their social-psychological wellbeing as well as having more advantaged socioeconomic and educational backgrounds. On the other, Zanolla (2013) in Switzerland found that a degree of school uneasiness as well as social origins influence the decision to invest in SE.

In terms of the impact of SE on wellbeing, as highlighted by Kim and Jung (2019), much less is known about how students construct their experience of SE or how it contributes to or constrains students' intellectual and biographical development. Research has found that an uptake of SE results in a negative influence on multiple dimensions of student wellbeing. This is particularly the case for the physical and cognitive dimensions of wellbeing, as SE can create an additional burden on students, producing fatigue and young people sacrificing sleep for studying, resulting in reduced cognitive performance (Bray and Kobakhidze 2014; Mori and Baker 2010). However, it should also be noted that some students may be happy to sacrifice sleep for their future prospects (Carr and Wang 2015; Kim 2016). Other studies highlight how SE shapes the quality of young people's lives, creating excessive demands on the lives of students, resulting in limited time for sports, socialisation and hobbies (Yung and Bray 2017). In the Irish context, students describe curtailing sports and social activities in their final senior cycle year, spending long hours on homework, study and SE, where grinds are viewed by students as a 'squeeze on their time' (Smyth, McCoy and Banks 2019). Bray (2013) argues that SE in Hong Kong puts excessive pressure on young people, diminishing psychological wellbeing, and socio-emotional development. In contrast to these studies, research from South Korea also suggests that SE can act as 'nerve sedative' to relieve the stress from educational competition because SE instructors are considered 'better communicators' and 'more caring and friendly' than classroom teachers by students (Kim 2016).

Theoretical Framework

Byun, Chung and Baker (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. 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, Chykina, and Khavenson 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 in terms of parental education and household income use the education system to build on their advantage. According to this view, elites and the advantaged create and reproduce the educational system in ways that serve their own interests and in ways that serve to ensure the advantage of upper-class children in school. To this end, SE is viewed by middle class parents as a necessary commodity. That is, middle class parents and students engage with such tuition 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 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.

Yet, we already know from previous research that not all investments in SE are rational or completely determined by family resources, or that the transmission of advantage is automatic and guaranteed (Lareau, Evans and Yee 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, Khavenson and Chirkina (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 decision-making, 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.

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 twostage design in which secondary analysis of quantitative data is undertaken and complemented with secondary qualitative analyses (Creswell 2003). The Growing Up in Ireland study 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, Creswell and Stick 2006, p.5).

In the first phase of analysis, we draw on the first three waves of Cohort '98 of the national longitudinal study of children, Growing Up in Ireland. Wave 1 of the study

recruited a cohort of 8,568 nine-year old children who were subsequently followed up when they reached 13 (wave 2) and 17/18 years of age (wave 3). Growing up in Ireland adopts a fixed panel design, so by 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. The response rate at 17/18 years of age was 81 per cent of young people who took part at wave two (13 years old). For more information see Murphy et al. (2019).

These data are particularly useful to examine the characteristics of young people who engage in SE during upper secondary education, 61% of which are in their final year of study. 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 yes or no to the following questions: (i) if they currently pay for grinds or private tuition, (ii) if they pay for grinds on an on-going basis throughout the year (every week/fortnight etc), or (iii) if they pay for grinds on a block basis e.g. at holiday times (e.g. Easter). A binary dependent variable was created from the parent responses to these questions. In all 51 per cent of the sample indicated that they paid for SE.

A key strength of the Growing Up in Ireland study 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, a binary variable indicating whether the young person has a special educational need, and the stage of upper secondary education. GUI includes multiple measures of student achievement and student learning. Here, we include grade point average based on previous attainment in the Junior Certificate when the young person was age 16.

To account for student motives and agency, we include a binary measure of higher education expectations at age 17/18 indicating whether students have plans, or not, to go on to 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, Lien and Wang 2022). Here, a self-report measure of the young person's conscientiousness using the Ten-Item Personality Inventory (TIPI) is used. The conscientious dimension consists of two statements 'I see myself as: dependable, self-disciplined' and 'I see myself as disorganised, careless'. Both responses were added up and divided by two to reveal the score for the measure. 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.

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 Piers-Harris II scale (Piers, Harris, Herzberg 2002) - a widely used measure of psychological health in children and adolescents. Here we use the 14-item 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. 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, as reported by the young

person. 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.

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, Quail and Smyth, 2012; McCoy, Byrne and Banks, 2012).

At the household level measures of parental education, household income and social class are included to capture the human capital and social capital of the household and to tap into the social stratification of access to higher education. Parental education is defined as the highest level of education of the primary caregiver. Household income is presented in income quintiles, differentiating between high, medium and low-income households. Family social class is a fourfold classification based on the Standard Occupational Classification used by the Central Statistics Office¹.

¹ 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'.

We also include information about the school community. A measure of school type is included, differentiating between secondary, ETB, community and comprehensive schools. A binary variable is included to distinguish fee-paying schools from non-feepaying 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 in the model.

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 SE.

In the second phase, the key focus of the research was on the student voice - students' own experience and perceptions of their schooling. Administrative data from the Irish Department of Education and Skills were used to identify 10 mainstream secondary schools for case-study, in-depth analysis. A theoretical sampling frame focused on two key dimensions: social mix and sex mix. Over and above these two dimensions, schools were selected to capture a variety in terms of school size (which is known to have an impact on ability grouping), sector and location. In each school two focus groups were conducted with students from two settings – those pursuing an advanced ('higher level') mathematics programme and those taking the standard ('ordinary level') mathematics programme. The data were gathered as part of a 2018 study for the National Council for Curriculum and Assessment examining the impact of changes in the Leaving Certificate grading scheme. Both authors were researchers on this study (McCoy et al., 2019).

Pseudonym	Type and Gender Mix	Size	Social Mix
Nore	Girls' Secondary	Medium	DEIS

 Table 1: Characteristics of the Case Study Schools

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	

The focus groups with students explored:

- 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 grinds/SE role and impact of such tuition; perceived readiness for the Leaving Certificate exams;
- (3) 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. Data were collected in March and April 2018, and all interviews were recorded, with consent, and transcribed verbatim. Data were analysed using NVivo, taking an inductive thematic approach. In advance of the research, a detailed research plan was approved by a Research Ethics

Committee, to ensure the highest standards were maintained throughout the study (see McCoy et al., 2019).

Results

Characteristics of Final Year Students Engaged in Shadow Education

Descriptive statistics for participation in SE are presented in Table 1. As indicated above, nearly 60 per cent 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, 4-6; Guill and Lintorf, 2019). The results point to social structuring in SE participation in Ireland, with levels of participation varying widely by parental education and social class. For example, SE participation levels range 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 more likely to engage in such tuition, as are those who plan to progress to higher education.

To better understand the individual, household and school characteristics that distinguish upper secondary students that use SE from those who do not, Table 2 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); these students are 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, Condron, and Roscigno 2010; Byun, Chung, and Baker 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 higher conscientiousness scores are less likely to use SE than those with lower scores suggesting that those with tendencies towards conscientiousness are less influenced by the grinds culture. Among our wellbeing variables, only attitudes toward school reached statistical significance, with those who always liked school between the ages of 9 and 13 more likely to use SE than those who had less favourable attitudes towards school. While it approached statistical 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, indicating that 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 can be defined as 'early school leavers' – having completed lower secondary education or less – 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 than all other students. 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 socioeconomic backgrounds have a lower likelihood of using SE than those attending schools with more affluent student intakes (consistent with research from other countries (Matsouka, 2015)).

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, as the course content is so vast. Teachers also acknowledge this and feel that, 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 saw 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 exam based 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 of grinds, emphasising content most relevant for the Leaving Certificate examination and enhancing their chances of a strong performance in that exam. 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 (McCoy 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 selfimposed 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 across focus groups across all school contexts: "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 examrelated 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)

	%
All	51.1
Individual	
Gender	
Female	55.4
Male	47.7
Male	47.7
Special Educational Need	
SEN	52.0
No SEN	48.8
Upper Secondary Stage	
Final Year	59.1
Other Year	39.3
Lucian Contificate CDA	
Junior Certificate GPA	35.2
Q1 (low)	53.2 52.0
Q2 Q2	61.7
Q3	61.2
Q4 O5(kick)	
Q5(high)	57.3
Achievement-Directed Activities	
Cultural Activities	
Cultural activities age 9 & age 13	61.6
Cultural activities age 9 only	55.2
Cultural activities age 13 only	44.2
No cultural activities	43.0
Sports Activities	
Sports activities age 9 & age 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	110
Yes	44.8
No	51.7
Books in the home	
Less than 10	35.4
10-20 Books	46.1
21-30 Books	50.0
31+	54.8
Student Wellbeing & Motives	51.0
Attitudes toward school between age 9 & 13	
Always liked school	53.6
	00.0

Table 1a: Descriptive Statistics: Percentage Participating in SE

Less favourable attitudes	50.7
HE Expectations YP expects to go to HE YP does not expect to go to HE	55.5 34.7
Family Characteristics Parental Education Higher Education Degree+ Third Level Non-Degree Upper Secondary/Vocational Lower Secondary or Less	62.0 56.8 50.9 36.0
Parental Social Class Professional/Managerial Non-Manual/Skilled Manual Skilled/Unskilled Manual No Social Class	60.2 49.7 38.9 38.6
Household Income Household with High Income Household with Middle Income Household in Income Poverty Household Income Unknown	68.1 53.5 37.5 53.5
Migrant Family Yes, young person second generation	52.1 48.6
No	10.0
School Characteristics School Gender Intake Female single sex Male single sex Coeducational	58.1 52.9 48.4
School Characteristics School Gender Intake Female single sex Male single sex	58.1 52.9
School Characteristics School Gender Intake Female single sex Male single sex Coeducational School fee-structure Fee-paying school	58.1 52.9 48.4 68.8

School Sector

Secondary	55.5
Community	48.3
Vocational	45.9
Comprehensive	37.8

Table 1b: Descriptive Statistics: Average Participating in SE

Metric Variables	Full Sample	SE Mean
	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

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*
	(0.131)
Q3 JC GPA	1.6***
	(0.176)
Q4 JC GPA	1.4**
	(0.157)
Q5 JC GPA (High)	1.1
Ref: Q1 JC GPA (Low)	(0.125)
Student Motives	***
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)
	1.0
Piers Harris Anxiety Score Age 13	1.0
	(.011)
Parental Control score	1.01°
	(.005)
Achievement-Directed	
Cultural activities age 9 only	0.810^{**}
-	(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	$.810^{*}$

Table 2: Binary Logistic Regression Model of the Factors Associated with Parents' Paying for Shadow Education (Odds Ratios)

	(.082)
Sports activities age 13 only	.760**
Sports activities age 15 only	(.079)
No sports activitios	.661***
No sports activities	
<i>Ref: Sports activities age 9 & 13</i>	(.082)
Extra support for learning age 9 or 13	
Yes	1.0
Ref: No academic support	(.120)
Books in the Home	
10-20 Books	1.5^{*}
10 20 BOOKS	(.231)
20-30 Books	1.5**
20-30 BOOKS	
$20 + \mathbf{D}_{2} + \mathbf{L}_{2}$	(.238) 1.5 ^{**}
30+ Books	
Ref: Less than 10 Books	(.211)
Parental characteristics	
Lower Secondary or Less	0.7^{**}
-	(.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^{*}
Non Manual Skined Manual	(.069)
Semi-Unskilled Manual	0.8*
Senii-Oliskined Manual	(.098)
Secial Class University	
Social Class Unknown	0.8**
Ref: Prof/Managerial	(.088)
Parental income	
Income Poverty	0.7^{***}
	(0.072)
High Income	1.4***
C C	(.123)
Income unknown	1.2
Ref: Middle Income	(.152)
Family Migrant History	
Family Migrant History	0.8^{***}
Second generation	0.8 (.059)
School characteristics	(.007)
Male single sex	1.1
	(.133)
Female single sex	1.0
Ref: Coeducational	(.129)
кеј. Свешисинонин	(.127)

DEIS School	0.8^
Ref: Non-DEIS School	(.101)
U U U U U U U U U U U U U U U U U U U	
Fee-paying school	1.2
Ref: Non-fee-paying school	(.162)
Small school	0.9
	(.095)
Medium school	0.9
Ref: Large school	(.07)
Vocational	0.9
	(.117)
Comprehensive	0.7
	(.185)
Community	1.0
Ref: Secondary	(.141)
Constant	0.5^{***}
	(.183)
5,149 Pupils	
593 Schools	
Estimate	.170
Standard Error	.044
Exponentiated coefficients; <i>t</i> statistics in parentheses	

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

Discussion

The growing scale of SE provision and engagement is evident and, 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, 6). That nearly 60 percent 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 (Niemi et al., 2016; Bray, 2020, 23). While our evidence may suggest a dissatisfaction with provision by schools, it perhaps points more strongly to the power of the high stakes terminal examination which dominates and students turning to grinds to improve their grades in that system. In their conversations, students highlight the role of SE in preparing them for this Leaving Cert examination – 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. The evidence highlights that students acted agentively – reflecting both on the direct role of SE in a high stakes exam system, but also 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 the 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, an accepted component of examination success for many students. 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, 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. While we don't yet have any data, it is highly likely that SE has provided those with the financial means valuable opportunities to complement the mainstream learning experiences of their children and compensate for wide variations in schools' effectiveness in supporting student learning, at least during the early phases of the pandemic (Mac Domhnaill et al., 2021). As indicated by Zhang and Bray (2020) 'Faultlines 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' (p. 327). They argue that the pandemic brought shadow education 'out of the shadow'. Large-scale SE providers may well have been more effective in responding to the restrictions imposed by the pandemic and more innovative in their provision. This has been a feature of provision internationally, with Zhang and Bray (2020) noting that "Shadow education has embraced technology much more rapidly than schooling, and at a much larger scale." (p.330)

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. Greater diversity in assessment approaches and reducing the reliance on a final terminal examination, may create a system where there are fewer incentives to engage in SE. Recent announcements aiming to spread assessment over the course of upper secondary education cycle and using a wider variety of approaches to assess student performance may reduce these incentives (NCCA, 2022).

A number of commentators have highlighted the role of regulation and the need for more macro-level regulations, guidelines and codes of conduct. There may also be a case for schools themselves setting policies on teachers providing SE to their own/any students. Bray (2020, 27) suggests a need for research on a comparative analysis of regulations. He notes that England has almost no regulations on tutoring, particularly when provided by individuals. Several other European countries, including ones in Eastern Europe, are in this respect 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, 21). However, large-scale for-profit providers are gaining an increasing presence in Ireland, as elsewhere, so restrictions on the activities mainstream teachers will have little impact for this sector.

The evidence further highlights the importance of targeted supports and resources for those in schools serving more socio-economically disadvantaged populations, and again raises critical questions over the scale of funding allocated to priority education policies in Ireland. Persistent achievement gaps between DEIS and non-DEIS schools have been well-documented, and differential engagement in SE is at the very least 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.

This paper will be complemented by a second paper examining the impact of participation in SE on examination performance and progression to higher education, drawing on the next wave of Growing Up in Ireland (at 20 years of age). The research will also consider the impact of SE on young people's self-esteem, motivation and interest in learning over time.

Limitations

SE provision no doubt 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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