A REALIST THEORY OF THE PROJECT QUALIFICATIONS

Origins

In 2003, the government asserted that there was a 'growing consensus' (DfES, 2003, p. 7) that 14–19 education in England needed reform. There were, it claimed, concerns about learner participation, engagement, challenge, choice, and achievement. It also claimed that the qualification system lacked cohesiveness, undervalued the vocational, and overly narrowed student learning. Consequently, a working party was appointed to address these issues.

In October 2004, the Working Group on 14–19 Reform (2004a, 2004b) set out its recommendations for a unified diploma qualifications framework for 14–19 year olds comprising four levels: entry, foundation, intermediate, and advanced. The framework, although neither research-led nor theory-based, had been widely consulted on. It was designed to tackle the educational ills imputed by the government whilst maintaining putative strengths by subsuming rather than replacing GCSE and A-level qualifications.

An integral part of the framework was what the working party called the 'extended project', an idea that it first mooted in its interim report published eight months earlier (Working Group on 14–19 Reform, 2004c). The extended project, a major piece of work like the IB personal project done over a long time and intended to *extend* learning, would be a compulsory component of foundation, intermediate, and advanced diplomas. Learners would work independently with tutor guidance. The nature of an extended project would vary according to output, level, and subject matter. The output might be a written report, a construction, an artwork, a performance. Learners might develop in-depth understanding, cross-disciplinary understanding, or both. At foundation and intermediate levels, learners might set themselves a personal challenge and complete tasks to meet it, an idea appropriated from ASDAN.

The working party saw the extended project as serving several purposes. The project would engage learners by promoting creativity and encouraging them to pursue personal interests. Through it, learners could apply 'basic skills', such as functional literacy, and synthesise knowledge acquired from the taught element of the diploma. It would challenge them, particularly the most able, by requiring the exercise of 'generic skills' such as critical thinking. Universities could help support learners, and, at all levels, assessment would include an oral presentation or viva. This would all be excellent preparation for undergraduate study. There was even room for business involvement; the value of vocational education was upheld (see Coffield & Williamson, 2012, p. 41). The extended project would, it was hoped, relieve learners from over-assessment by being a single substitute for coursework in other subjects. Correspondingly, in the context of its proposed

assessment reforms, the working party contended that the extended project would reduce teacher workload. Teachers would mark learners' work in stages throughout the project, focusing on both the outcome and the process, and using national criteria and standards. Marking would be externally validated.

On the day that the final report was published prime minister Blair signalled the government's rejection of the framework (Blair, 2004). This rejection was confirmed in a white paper issued a few months later (DfES, 2005a). Commentators have speculated on the reasons: political expediency, the framework's complexity, the changing political landscape (Hodgson & Spours, 2008, pp. 34–36). Nonetheless, the government cherry-picked the extended project.

The government resolved to introduce the extended project at level 3 and make it available to learners on academic and vocational qualification routes; indeed, it would investigate how to make it a 'national entitlement' (DfES, 2005a, p. 77). For the extended project could, it agreed, promote intellectual challenge. The government believed that the extended project could replace a fourth or fifth AS-level, the easier half of an A-level. But it claimed not to be persuaded that the extended project could adequately replace subject-specific A-level coursework. It instructed the QCA to consult with universities and businesses to develop a framework and specifications and to initiate a pilot in 2006 to assess 'manageability' (DfES, 2005a, p. 63) for institutions. The government reiterated its support for the extended project in a second, broader white paper published eight months later (DfES, 2005b, p. 57).

In the following May, the QCA, in collaboration with regulators in Wales and Northern Ireland (DELLS and CCEA), published a consultation document (QCA, 2006a) and a draft extended project (level 3) framework including draft assessment criteria (QCA, 2006b). Two awarding bodies, AQA and Edexcel, used the criteria to design level 3 specifications (CEI, 2008) which were piloted between autumn 2006 and summer 2008 (QCA, 2007). It was also decided, presumably by the QCA in conjunction with the awarding bodies, to pilot the extended project at levels 1 and 2. These pilots took place from September 2007 to summer 2009 (QCA, 2008d). Awards for the level 3 extended project (EPQ) were made from summer 2007 to summer 2008. Awards for the level 2 higher project (HPQ) and level 1 foundation project (FPQ) were made in summer 2008 only (Pinot de Moira, 2012a, 2012b; Pinot de Moira & Tremain, 2012). Approximately 1,946 learners were entered for the EPQ in the pilot (Gill, 2016b).

In 2008, the QCA published guidance and finalised assessment criteria for the project qualifications (PQs) (QCA, 2008e). The EPQ, HPQ, and FPQ could each be taken as a compulsory part of a new diploma qualification or as a standalone qualification (QCA, 2008d). In Wales, the EPQ could be taken as part of the Welsh Baccalaureate (Pring et al., 2009). Furthermore, the EPQ would attract UCAS tariff points and was regarded as equivalent to an AS-level qualification; unlike an AS-level, however, the A* would be awarded (Chambers & Lewis, 2008).

Four awarding bodies were accredited to offer the PQs: AQA, Edexcel, EDI, and OCR

(QCA, 2008f, 2008g, 2008h). The EPQ was available from September 2008 for first award in summer 2009 (e.g. Edexcel, 2008a); the HPQ and FPQ were available a year later for first award in summer 2010 (Edexcel, 2008b). Over four years after conception, the FPQ, HPQ, and EPQ were ready for launch across England, Wales, and Northern Ireland.

Development

The nature of the PQs has remained constant over the last decade. Indeed, the original Edexcel (2008a, 2008b) specifications are still current. The original AQA (e.g. 2007) specifications have been replaced by tweaked versions (e.g. AQA, 2015c, 2019c). OCR is withdrawing its FPQ and HPQ specifications because of low uptake (OCR, 2018). It has reconfigured its EPQ specification (OCR, 2017b). OCR claims to have reduced bureaucracy and rationalised the marking criteria. The reconfigured specification gives centres the option of submitting work for external moderation electronically. New EPQ specifications have been introduced by other awarding bodies (e.g. ASDAN, 2019).

Recently, the international project qualification (IPQ) was introduced, designated for use in an international qualifications context (e.g. OxfordAQA, 2017). The IPQ is shorn of the option for learners to create artefacts, design products, or conduct performances. Notably, the Cambridge Assessment (2018) version is externally, rather than internally, assessed.

Although the FPQ, HPQ, and EPQ have remained unchanged, the qualifications context in which they exist has changed. The 14–19 diploma qualifications (DCSF, 2008), of which the PQs were a compulsory element, were introduced in 2008. The initial five subjects, or 'lines of learning', grew to fourteen by 2010 (DfE, 2011). Each was available at levels 1, 2, and 3. Altogether, 11,472 diplomas were awarded in 2011, 11% at level 1, 74% at level 2, and 15% at level 3. Because of their low popularity and low status, the diplomas were withdrawn in 2013. National uptake of the FPQ and HPQ has waned as a result.

It has always been possible to take standalone PQs alongside both the main 14–16 qualifications, GCSEs, and the main 16–19 qualifications, A-levels. Both of these qualification types have been reformed over the past decade. The new GCSEs, phased in from 2015, use a 9–1, rather than an A*–G, grading scale. Academic rigour has, the government insists, been raised. The new GCSEs are linear, rather than modular, usually take two years, and are assessed by written examination wherever possible (Ofqual, 2019a). At A-level, grade A* was introduced in 2010 to recognise exceptional performance. New A-levels, decoupled from one year AS-levels, were introduced from 2015. They too are linear, expected to take two years, and usually assessed by written examinations, rather than coursework (Ofqual, 2019b).

GCSE and A-level reforms have been accompanied by changes to school accountability measures. The EBacc, introduced in 2010, is a measure of pupil participation and performance in five subjects at GCSE (Long & Danechi, 2019). Progress 8 and Attainment 8, introduced in 2016, are measures of pupil performance in eight academic subjects (DfE,

2020). Likewise, in KS5, performance measures emphasise progress and attainment in academic subjects, with a discrete average point score for A-levels, including the best three. This propels schools and colleges to narrow their 14–19 curriculum and concentrate on examination preparation.

These reforms are a manifestation of a 'knowledge' re/turn in English schooling initiated by a government enamoured of Hirsch (Gibb, 2015). Hirsch (1988, 1996, 2016) underscored the importance of a structured, sequentially taught curriculum emphasising pre-specified culturally vital facts. Factual knowledge, for Hirsch, constituted a necessary condition and context for the cultivation of skills. Hence, proponents were dismissive of learning through projects (e.g. Christodoulou, 2014). But the content-lite PQs survived the ensuing purge of skill-orientated qualifications Ofqual (2017). Schools are still offering them despite the inexorable focus on the knowledge curriculum in the Ofsted inspection framework (2019). The PQs have consequently become increasingly distinctive.

National uptake of the PQs has not been obviously influenced by the knowledge turn (figure 1). In total, 441,901 PQs were awarded from 2009–2019. Seventy-four percent were
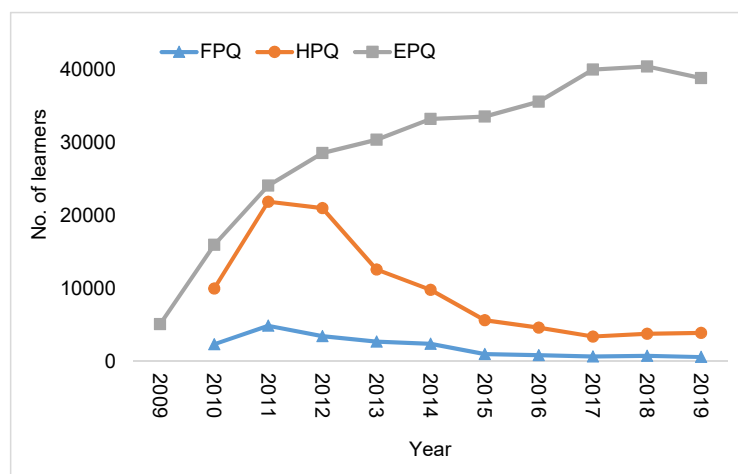

Figure 1: Number of PQ awards, UK, summer session, 2009–2019. Source: JCQ (appendix A).

EPQs, 22% were HPQs, and 4% were FPQs. Uptake of the EPQ grew rapidly from 2009 to 2012 (mean increase 94%), then grew steadily over the next six years (mean increase 6%), and declined slightly (-3%) in 2019. Uptake by female students has consistently been higher (range 17%–21%) than by male students. The HPQ has been less popular. After an initial increase of 119% from 2010 to 2011, uptake fell over the next six years (mean annual decrease 25%). But there has been modest growth over the last two years (mean increase 7%). Uptake by female pupils was higher than by male students in 2014–2017 (mean difference 11%), but lower in all other years (-4%), except in 2012, when the split was equal. The FPQ has proven less popular still. After popularity spiked by 110% from 2010 to 2011, numbers have declined every year since (mean decrease 26%), except for a 16% increase in 2018. Uptake by males has consistently been higher than by females

(mean difference 11%, range 2% to 26%).

PQ attainment has been on an upward trajectory on A*, A*–A, and A*–B measures (figure 2). The upward trajectory may partially be caused by grade inflation; He and Black
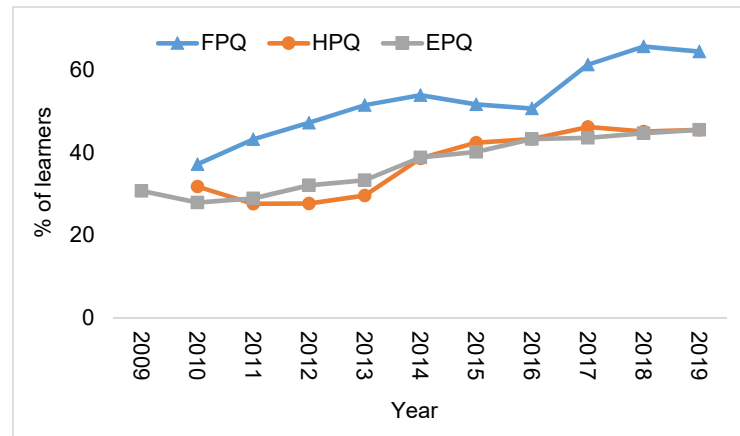

Figure 2: A*–A PQ awards, UK, summer sessions, 2009–2019. Source: JCQ (appendix A).

(2018) found that there may have been modest grade inflation in the EPQ, especially since 2014. Female learners have outperformed male learners on A*, A*–A, A*–B, and, where applicable, A*–C measures in all PQs 2009–2019 inclusive. This is part of a wider pattern of females outperforming males in schools throughout the industrialised world (Legewie & DiPrete, 2012).

Nature

In 2020, the PQs are offered by the three main awarding bodies, AQA, OCR, and Edexcel. City & Guilds, WJEC, and ASDAN offer only the EPQ, although the EPQ is compulsory in the obsolescent AQA Baccalaureate.

A foundation, higher, and extended project is a substantial piece of work completed independently by learners over a long time, typically several months. Learners choose to write an extended text, such as a philosophical essay or a field study report, or do something—create an artefact, design a product, conduct a performance—and write a shorter, accompanying text to account for it. Learners decide the topic and plan, manage, realise, and review their project, meeting one-to-one with a supervisor who provides non-directive guidance. They attend taught sessions on matter such as research skills and must give a presentation to, and answer questions from, a non-specialist audience. Projects are marked internally, subject to internal standardisation and external moderation. There are four assessment objectives, consonant with criteria determined by the QCA (2008a, 2008b, 2008c).

The awarding body specifications detail the features of the PQs, though terminology, pro formas, guidance, and marking criteria vary. All specifications stipulate that learners

must keep a record on prescribed pro formas of their progress and reflections. The current AQA (2020) logbooks each number 14 pages and over 1,800 words. This is before learners have added anything and does not include the marking schemes. At least seven signatures are required. There are sections for the learner, supervisor, and coordinator to complete. The OCR (2017a) progression record, in contrast, is only four pages and contains 365 words. Four signatures are needed, and only the learner completes it.

The FPQ is graded A*–B, the HPQ is graded A*–C, and the EPQ is graded A*–E. A comparison of the FPQ, HPQ, and EPQ specifications of AQA (viz. 2019a, 2019b, 2019c) shows that the qualifications are virtually identical. The expected length of the texts that learners must write varies (table 1). Teachers may have more practical input into the

Table 1: Text lengths specified by AQA by PQ level

	Extended text	Text with artefact
FPQ	1,000	250
HPQ	2,000	500
EPQ	5,000	1,000

FPQ. The fundamental difference is the expected standard. This is not obvious from the three marking schemes, where the mark band descriptors are similar or identical. Thus, exemplar projects are needed to establish standards.

Status

Public awareness of the EPQ is relatively low, according to survey data from 2016 (YouGov, 2016a, 2016b). Only 35% of respondents (n=2,217) were cognisant of the EPQ; cognisance was not much higher amongst young people (39%), universities (44%), and teachers (53%). Half of respondents (n=647), especially headteachers and universities (56%), perceived that the EPQ was as challenging as A-levels. But most young adults (59%) believed that it was easier.

Extrinsic value has been conferred on the EPQ. The EPQ is counted in school/college performance measures (DfE, 2018a, 2018b), although not the major ones. It attracts up to 28 UCAS tariff points (2019). Some universities include it in admissions offers to students (e.g. University of Southampton, 2019) and are actively involved in supporting students (e.g. Cripps et al., 2018; Johnson, 2016).

Universities unanimously extol the benefits of the EPQ. The Russell Group (2019) wrote that it 'can be used in your personal statement or interview to demonstrate your interest or aptitude in the subject'. Likewise, politicians of different stripes have invariably expressed positive words about it (source: Hansard). Indeed, there is an ever-growing chorus of voices valorising the EPQ. It is lauded for potentially serving different disciplines: astronomy (Barclay, 2011), geography (Ferreira, 2018; A. Smith, 2009), geology (Hayward, 2013), history of mathematics (Pope & Rogers, 2018), music (Hodges, 2007), philosophy (Foster & Williams, 2011), physics (Wellcome Trust, 2016). Likewise, it is praised for

potentially promoting an array of broader educational ends: citizenship (Learning and Skills Network, 2009), collaborative learning (Townley, 2018), scientific experimentation (The Royal Society, 2016), curricular enrichment and extension (Wilkins et al., 2010), global learning (Bentall et al., 2014), independent learning (e.g. Elliott, 2013), information literacy (Evans & Baker, 2017), research skill development (e.g. Kotecha et al., 2010). The EPQ, it seems, means all things to all people.

In contrast, the HPQ and FPQ are lowly in status and bereft of attention. Neither is included in performance measures. They are seldom mentioned at all, and when they are, the mention is brief (e.g. Lowe, 2018; Taylor, 2017; Watts & Gimson, 2014). However, change might be afoot. AQA reports that 'there is increasing national interest and uptake in [the] HPQ' (Thomas, 2020). It is being used as an EPQ-lite alternative for KS5 students and as a vehicle to develop independent study skills with KS4 learners.

Knowledge

There is an emerging body of empirical research into the EPQ. At one extreme, there are reflective articles on the EPQ. Cartwright (2012, 2016) has given a narrative account of her experience of being a coordinator and supervisor in the AQA EPQ pilot. She notes that learners produced their own 'living theories' (Whitehead, 2008) and contends that all learners, not just ones labelled 'gifted and talented', might benefit from doing a project. But these anecdotal studies, however compelling, are impressionistic: their micro theories are not systematically based on data.

At the other extreme, there are studies of the EPQ that involve the statistical analysis of national data sets. Jones (2016) used prior GCSE attainment data and AQA A-level and EPQ attainment data from 2014. A prediction matrix showed that EPQ students did better in A-levels taken concurrently that non-EPQ students with the same prior GCSE attainment, except in Mathematics. Complementary regression analyses found that doing an EPQ increases the odds of attaining A-level grade A*–B by a third, though not in mathematics and foreign languages. A unit increase in EPQ attainment increases the odds of attaining A-level grade A*–B by 7%.

These findings were largely confirmed in similar studies (i.e. Gill, 2016a, 2017). Regression analyses of NPD data from 2013/2014 and 2014/2015 found that doing well in an EPQ improves A-level performance by the equivalent of a quarter of a grade. The association was more pronounced for higher prior attainers, males, students attending further education/tertiary colleges, and students taking more qualifications. Moreover, the association was stronger for some A-levels, (e.g. English Literature and History), than others (e.g. Mathematics and Sociology) (Gill, 2016b). Finally, two other related studies (Gill, 2018; Gill & Vidal Rodeiro, 2014), based on HESA and NPD data covering 2010/2011 and 2012/2013, yielded similar findings. Correlation analysis found a good relationship between EPQ attainment and undergraduate attainment. Similarly, regression analyses showed that this relationship exists after controlling for A-level attainment. Taking an

EPQ increases the odds of attaining an upper second class degree or better by a fifth in Russell Group universities and by a third in non-Russell Group universities.

The authors of these studies caution against the false cause fallacy. The ostensible effects of doing an EPQ may, in fact, be caused by other (known or unknown) factors, such as learner motivation (Gill, 2017). This has ramifications for the practical import of the studies. Without knowing whether, why, and under what conditions the EPQ has the benefits identified, the implications for practice and policy cannot be distilled.

Some studies have attended to causes. Daly and Pinot de Moira (2010) theorise the EPQ using a student approach to learning (SAL) conceptual framework. Two approaches to learning are posited: a superficial approach comprising superficial motivation and superficial strategy, and a deep approach comprising deep motivation and deep strategy. Regression analysis was used to show that, although a deep approach to learning was positively associated with EPQ attainment, prior GCSE attainment, unmediated by learning approach, was the overriding factor in determining success. Academic ability is crucial for attainment, then, to the extent that prior GCSE attainment is a proxy for academic ability. Further regression analysis showed that learner engagement is positively affected, not by prior GCSE attainment, but by a deep learning approach, especially deep motivation. A superficial strategy has a negative impact on engagement. In other words, a deeply motivated learner is likely to be engaged by the EPQ, regardless of their academic ability, so long as they avoid a superficial learning strategy. Notably, females were found to be less engaged in the EPQ than males. The upshot is that, vis-à-vis the EPQ, ability is key to success and motivation is key to engagement. This, unfortunately, does not explain the EPQ effect.

Other researchers have theorised the EPQ as an instance of self-regulated learning (SRL). SRL is a heterogeneous psychology of learning; Panadero (2017) isolates at least six distinct models. Typically, *self-regulation* is posited as the mediator of cognitive ability and academic skills (Zimmerman & Labuhn, 2012) and refers to self-directed cognitive, metacognitive, conative, affective, and behavioural activities and processes (Pintrich & de Groot, 1990; Zimmerman, 1986). It enshrines (or conflates) allied concepts such as independent learning, self-efficacy, growth mindset, and metacognition.

Stoten (2013) found that the EPQ encourages SRL: it is a singular, worthwhile endeavour that promotes academic and learning skills and qualities such as independence, self-motivation, and self-responsibility. Likewise, Stephenson and Isaacs (2019) found that the EPQ promoted SRL in three ways. First, the EPQ builds learner 'agency' (or 'autonomy'). Learners are freed to take control of and responsibility for their learning. This promotes meaningfulness, fosters ownership, and heightens challenge. The EPQ is contrasted starkly with A-levels, which foster didactic, formulaic teaching and restrictive, regurgitative learning. Second, the EPQ facilitates learner self-discovery, self-efficacy, and self-confidence. Learners gain insights into their qualities, capabilities, and learning preferences. They become more resilient, perseverant, and self-corrective. Success in the EPQ creates a sense of achievement and boosts self-esteem. Third, it catalyses learner

engagement. Because learners pursue their interests and passions, they are motivated and find learning enjoyable. This amplifies their interest. It is concluded that the EPQ improves academic performance by cultivating SRL.

There is a danger that these studies have succumbed to the confirmation bias. The authors pre-conceptualise the EPQ as SRL and then proceeded to confirm that it is. Nowhere is the veracity of the pre-conceptualisation considered. To what extent, if any, is SRL a cogent learning theory? Is it conceptually coherent and evidence based? Does it adequately capture the complexity of the EPQ? If so, which model is the most apt? Does it explain why the EPQ effect is limited in mathematics and foreign languages? And does it explain why ability, not learning approach, is vital for EPQ success? Conversely, could the EPQ better promote it? Is the EPQ inimical to it in any way?

Moreover, the shortcomings of the EPQ are scarcely considered in the Stoten (2013) and Stephenson and Isaacs (2019) studies. But there are plenty. In the studies of the EPQ pilots, many issues were identified, including: the high attrition rate (about 50%); excessive workload and insufficient time; poor scheduling and advertising; the value of supervision, coordination, and the taught programme; the bureaucracy of the AQA logbook (a 'waste of time!'); and a creeping performativity (it 'was more about fulfilling the assessment objectives') (Pinot de Moira, 2012a, 2012b; Pinot de Moira & Tremain, 2008). A more critical account of the EPQ is needed.

Finally, no study to date has integrated extant EPQ findings, let alone ascertained how far these (or analogues) extend to the FPQ or HPQ. Cripps et al. (2018) found that learners undertake the EPQ to pursue interests, develop university skills, and strengthen credentials. (The latter motive is symptomatic of credentialism (Brown, 2001) in education.) The EPQ promotes academic literacy, research skills, independent learning, critical enquiry, and intellectual experimentation and challenge; it raises confidence, enriches attitudes to research, and extends learning beyond the curriculum. Thus, it prepares learners well for university. These findings, without acknowledgement, restate many of findings from studies conducted ten years before. The CEI (2008) found that the EPQ increases learner choice, promotes challenge, and fosters skill development, thereby preparing students for university. Similarly, AQA found that, in the EPQ, learners pursue personal interests, work independently, and strengthen their credentials; they enjoy learning, find the experience worthwhile, and see it as a bridge to university study (Pinot de Moira, 2012a, 2012b; Pinot de Moira & Tremain, 2008).

There is therefore a need to comprehensively describe both the educational impact of the EPQ and the causes and conditions of that impact. This description must be systematically based on data and not shun criticism. It must avoid superimposing a priori theory and integrate existing empirical findings. Moreover, only one study has attended to the FPQ and HPQ (i.e. Pinot de Moira & Tremain, 2008), and that attention was fleeting. It is simply not known whether their nature and effect are the same as (or similar to) the nature and effect of the EPQ. Likewise, the effect of taking successive PQs—for example, the FPQ in KS3, the HPQ in KS4, and the EPQ in KS5—is not known. There is, then, a need

for an explanatory theory of the PQs as a whole.

Rationale

The thesis will present an explanatory theory of the FPQ, HPQ, and EPQ. These are level 1, 2, and 3 qualifications respectively in the Regulated Qualifications Framework. The thesis will not concern the latest variant of the qualification, the international project (IPQ), because this is not widely available in the UK. Thus, the theory will hold true of the IPQ by extrapolation only.

The theory will be the first to integrate existing research findings pertaining to the EPQ. It will establish whether and how these extend to the HPQ and FPQ. Newly, it will conceptualise the PQs as a hierarchy of qualifications through which learners might progress. Areas not hitherto researched will be scrutinised, including technical projects, acceleration (taking a PQ early), and supervision. Also considered will be the extent to which, if any, the PQs overcome the academic-vocational divide (Wolf, 2011) and socio-economic disadvantage (Armitage & Lau, 2019). There will be research-based, rather than speculative, explanations of the correlations and regressions established in other research projects (e.g. Gill, 2017, 2018; Jones, 2016).

Practical and policy recommendations designed to bolster the impact of the PQs will be articulated. Such research-based recommendations are rare, with Foster and Williams (2011) a notable exception. Recommendations for PQ reform will be conveyed to awarding bodies and the qualifications regulator. For example, without prejudicing the outcome, it is conceivable that AQA will be advised to rationalise its marking criteria and de-bureaucratise its specifications. Recommendations for schools will also be made. In particular, it is likely that strategies to help teachers return to their ground state as educators will be suggested.

Research questions

What is the educational impact of doing a PQ on Riverside learners? Why does it have this impact?

Methodology

Answers to the research questions presuppose an open-system aetiology. This has meta-theoretical consequence. Positivism is precluded because it views the social world as essentially closed: in principle controllable and predictable. This forecloses a quasi-experimental design. Similarly, constructivism is ill-suited because, at best, it presupposes that only human constructions have causal efficacy in the social world. This position is inadequate: the social world may be concept-dependent but it is not concept-exhaustive

(Bhaskar, 1979/2015). Material factors, for example, can obviously be efficacious. Therefore, realism is the appropriate meta-theory.

Realism is a philosophical orientation rather than a clearly delineated philosophy. Therefore, I will draw mainly from the critical realism of Bhaskar (e.g. 2002, 1993/2008a, 1975/2008b). This work constitutes an integrated meta-theory. Advantageously, it supplies a philosophy of education. Education is conceptualised as the facilitation of emergent rationality towards emancipation or liberation (Shipway, 2010, p. 5). The ultimate end of education is therefore eudaimonic freedom: universal realised interdependent freedom. Education presupposes teacher emancipation (Scott, 2010) so that teacher can be in their ground state (Bhaskar, 2002) as educators. This educational philosophy provides the criteria to assess the distinctly *educational* impact of the PQs.

The problem with critical realism is its abstractness and abstruseness. Critical realism is 'a philosophy in search of a method' (Yeung, 1997). This is perhaps because of the dearth of applied methodological texts embracing critical realism (Fletcher, 2017). Although critical realism purports to be a *practical* philosophy, its application in research has been limited.

Cogent causal accounts, for realists, recognise the importance of context. Therefore, a case study approach is fitting. A case study is an empirical investigation into a particular instance of *x,* where *x* is the proper object of study. The approach is suitable when contextual understanding is necessary for understanding the object (Harrison et al., 2017) and when the distinction between object and context is not sharp (Yin, 2018). The distinction between learners doing PQs per se and learners doing PQs at Riverside is not sharp. Although each educational instance is unique, no instance is entirely different (Pring, 2015). Thus, an in-depth study of one case can generate abstract theory that has purchase beyond the case (Yin, 2018). Specifically, it can uncover mechanisms that are present (activated or not) transfactually across cases.

A 'case' is a malleable concept which can encompass, for example, an individual, group, organisation, or event (Gerring, 2007): any instance that is bounded (Mabry, 2008; L. Smith, 1978). The research questions imply two types of case: a learner (individual) and the school (organisation). I will interpret the word 'case' in both ways. First, the research will comprise an empirical investigation into the effects of doing a PQ on Riverside learners. From this, a substantive PQ theory will be generated. Inevitably, the nuance of individual micro-narratives is lost in a synchronic meso theory. Consequently, one illustrative in-depth case study of one learner with rich PQ experience will be written, incorporating biographical and educational details. This will substantiate the meso theory.

Yin (2018) distinguishes the case study as *mode* and as *method*. The latter will not be espoused; instead, the method designed specifically to generate substantive meso theory will be used: grounded theory (Glaser & Strauss, 1967). This will maximise the theoretical nature of the research answer. Grounded theory is compatible with different meta-theories, and an increasing number of studies operationalise critical realism through it (e.g. Bunt, 2018; Hoddy, 2018; Kempster & Parry, 2011; C. Oliver, 2012). Grounded theory

is best viewed as a 'constellation of methods' (Charmaz, 2014, p. 14) connoting minimal meta-theoretical commitments. A significant conflict pertains to the use of extant theory. Realists tend to use extant theory as the starting point of social enquiry, which is evident in Bhaskar's RRREIC model (Isaksen, 2016). Classic grounded theorists, however, delay the literature review until a latter stage of data analysis (Glaser, 2012). I will utilise some extant concepts in the early research stages, but only realist ones, to provide a cohesive analytical framework or 'coding paradigm' (Strauss, 1987) without 'forcing' the data (Glaser, 1992).

The theory will be derived from the accounts of learners, alumni, teachers, and parents at Riverside. Actors' accounts—their subjective constructions in the conceptual domain—are indispensable in social research (Bhaskar, 1975/2008b). They can bestow insight into the actual impact of the PQs and into the real mechanisms generating that impact. Realist interviews (Hammersley & Atkinson, 2007) are suitable for eliciting these. Nevertheless, actors' accounts are corrigible and partial (Archer, 1998; Bhaskar, 1979/2015), subject to unacknowledged influences and unintended consequences (Giddens, 1984). Participant observation is not viable for triangulation because most PQ work is undertaken off-site. Hence, existing educational theory will be harnessed, and non-interview documentary data will be utilised in the learner case study.

I will conduct the interviews as practising PQ coordinator in my professional setting. This raises issues pertaining to insider research (Atkins & Wallace, 2012). Power asymmetries heighten the danger of participant conformity. The social dynamic fostered in group interviews can mitigate this (Kamberelis & Dimitriadis, 2013), especially with children who might not contribute openly in one-to-one interviews (Peterson-Sweeney, 2005). Therefore, group interviews will be used with 12–15 year olds. Group interviews, though, introduce a new threat: groupthink (Janis, 1972). Individual interviews counters groupthink and allow for in-depth exploration (Kvale, 2007). Thus, with participants older than 15 years, individual interviews will be conducted.

Open, responsive questioning will minimise undue researcher influence. Questions will, where necessary, be framed negatively—the devil's advocate technique (MacDougall & Baum, 1997)—so that participants are pushed to disagree to confirm theoretical propositions. Moreover, member checking interviews will be conducted in six local comparator institutions to which I am unaffiliated: one boys' school, one girls' school, one mixed school, one selective school, one independent school, and one sixth form college. Advantageously, this will function to gauge transfactuality.

Research population

The research will be conducted at a non-selective academy school for 11–18 year olds. Over 1,500 learners are on roll at this girls' school. Boys are admitted to its sixth form of around 400 students. The school was rated outstanding by Ofsted in the most recent inspection. Over the last four years GCSE results have consistently been above local authority and national averages on Progress 8 and Attainment 8 measures. In 2019, the

Progress 8 score placed the school in the top 7% of schools nationally. The average GCSE point score of learners entering the EBacc is significantly above local and national averages, as is the proportion of learners achieving GCSE grade 5 or above in both English and Mathematics. A-level results have hovered around or slightly below the local authority and national averages over the last four years, based on average student grades and government progress scores. The percentage of pupils with an SEN statement or an EHCP is below average, as is the percentage of pupils who receive SEN support, who are eligible for FSM, or whose first language is not English (EAL).

In total, 244 PQs have been awarded to learners at the school from 2012 to 2019. Fifty-five percent of these were EPQs, 27% were HPQs, and 18% were FPQs. Nineteen learners have received more than one PQ award: ten an FPQ and an HPQ, five an HPQ and an EPQ, and two a pair of HPQs. One pupil achieved an FPQ and an EPQ, and one pupil achieved two HPQs and one EPQ. The number of awards has varied significantly each year: EPQ range 7–24; HPQ range 3–28; and FPQ range 25–40. Variation is partly the result of different delivery models.

All FPQ and HPQ awardees and 82% of all EPQ awardees (n=134) were female. Awardees ranged from ages 13 to 18 years on 31 August of the school year in which their project was submitted. Eighty-five percent of EPQ awardees were aged 18 years; 4% were a year older, 1% was a year younger, and 9% were aged 15–16. Ninety-four percent of HPQ awardees (n=36) were 14–15; one awardee was a year older and one was a year younger. 98% of FPQ awardees (n=54) were 13–14, with one 15 year old receiving the award. Of all awardees (n=224), 68% were White British; 8% were of another White background. Five percent were Black Caribbean, and 4% were Black African. A proportion of learners from other ethnic backgrounds (13%) also received awards. Eight percent of awardees qualified for the pupil premium, FSM, or a bursary, measures of low socio-economic status. No CLA or disabled learner has received an award. Six percent had a statement of SEN or received SEN support, and 8% were EAL learners. Validated prior attainment data (KS2 or GCSE average point scores) is available for 211 awardees. Over 50% were high prior attainers, and 49% were medium prior attainers. Just one learner, a sixth former, was a low prior attainer.

Alps (2019) achievement scores for the EPQ are only included in the school's 2012, 2014, and 2015 reports: 2, 2, and 3 respectively, so all outstanding. Thirty-eight percent of all awards (n=244) were grade A*, 29% were grade A, and 20% were grade B. Of all EPQ awards (2012–2019, n=134), 31% were grade A*, 32% were grade A, and 19% were grade B. The national pass rates for all candidates (n=28,0772) over the same period were 17%, 24%, and 22% respectively (appendix A). Thirty-one percent of all HPQ awards at the school (2017–2019, n=45) were grade A*, 22% were grade A, and 27% were grade B. For female candidates nationally during the same examination year (n=5,503), the pass rates were 23%, 28%, and 24%. Lastly, of all FPQ awards at the school (2018–2019, n=65), 58% were grade A*, 25% were grade A, and 15% were grade B. For female candidates nationally in the same two years (n=608), the pass rates were 34%, 39%, and 23%. Riverside learners

achieve and attain highly in the PQs.

Attainment has varied according to learner attribute. Sixty-five percent of females (n=110) attained grades A*–A in the EPQ; 54% of males (n=24) attained the same. Sixty-one percent of sixth form awardees (n=122) attained A*–A in the EPQ; it was 92% for KS4 awardees (n=12). Eighty-five percent of KS4 awardees (n=12) attained A*–A in the and HPQ; 70% of KS4 awardees (n=97) attained the same. Table 2 shows that A*–A attainment was higher for White, socio-economically advantaged, non-SEN, non-EAL, and low-attaining learners in comparison to their respective counterparts.

Table 2: A*–A attainment in the PQs, Riverside, 2012–2019

Awardee attribute	%	n
Ethnicity		
Non-white	48	50
Black Caribbean	45	11
Black African	30	10
White	72	188
Socio-economic status		
Low	36	19
Not low	70	225
SEN	56	16
Non-SEN	68	228
EAL	47	19
Non-EAL	69	225
Prior attainment		
Medium	59	105
High	74	123

Accurate data on learner attrition—the number of learners who apply to take part measured against the number who complete—is available for 2018–2019 only. The overall attrition rate was 37% (n=204); for the EPQ, it was 53% (n=98), for the HPQ it was 15% (n=20), and for the FPQ it was 25% (n=86). Of all learners who did not complete the EPQ (n=52), 89% were female. Of all learners who did not complete their PQ (n=76), 57% were White British, 12% were of another White background, 9% were Black African, and 3% were Black Caribbean; 4% were socio-economically disadvantaged; 1% were SEN; 8% were EAL; 3% were low prior attainers, 43% were medium prior attainers, and 54% were high prior attainers (exclusive of two learners without prior attainment data).

From 2017–2019, 91% percent of EPQ projects (n=69) were extended essays, reports, or dissertations, rather than artefacts; from 2018–2019, 95% of HPQ projects (n=20) and 80% of FPQ projects (n=66) were extended texts. No project has involved conducting a performance or running an event.

Data relating to supervisors is available for 2017–2019. In total, sixty-two members of staff have been a supervisor for learners who completed their project; 56% have supervised two awardees or more. (The number of school staff who volunteered to supervise was 54 in 2018 and 56 in 2019.) The main subject specialism of staff has been science (19%),

English (15%), history (10%), mathematics (8%), religious studies (6%), foreign languages (6%), design and technology (6%), geography (5%), and nine other subjects (19%). Three LSAs (5%) have also been involved. Fifty-three percent of supervisors were teachers without leadership responsibility; 41% were school leaders: heads of department (24%), assistant headteachers (6%), heads of year (3%), leading practitioners (3%), and a deputy headteacher (2%). The headteacher and the SEN coordinator have also been supervisors.

Provision in the research setting

Different delivery models have been adopted over the last eight years. The AQA (2007) EPQ was launched in the sixth form in spring 2011. Year 12 students were invited in an assembly to take part by expressing an interest. The coordinator, a humanities teacher, delivered the taught programme in curriculum time and acted as supervisor for all students. Presentations were given to peers in the school hall. Projects were submitted for assessment in November 2011.

Over the following four school years, the EPQ was coordinated by a conscripted senior leader. As before, year 12 students were invited to take part, but they had to secure the services of a supervisor themselves by asking members of staff. The headteacher and other senior leaders acted as supervisors, but their supervisees did not complete. Occasionally, learners in years 10 or 11 were given the opportunity to undertake the qualification. The taught lessons were delivered by teachers who volunteered and according to their expertise. Presentations were given on evenings to which parents, teachers, learners, and guests were invited. Year 12 students embarked on their project late in the summer term, submitting projects for assessment in the following summer, when they were in year 13. EPQ provision was assessed as an outstanding feature of the school by Challenge Partners (2019). The updated AQA (2015c) specification was adopted.

I became EPQ coordinator in autumn 2016, midway through the 2016/2017 cycle. The delivery model remained the same, except the taught programme was delivered outside of curriculum time. The AQA (2015b) HPQ was introduced and coordinated by another senior leader. Year 9 pupils were invited to apply by letter to take part. Applicants were split into three groups and assigned a conscripted teacher who delivered the taught programme in curriculum time and acted as supervisor. All but two HPQ presentations were given to peers. Projects were submitted for assessment in summer 2017.

At that time, I assumed the position of coordinator for all three PQs. Since then, provision has become increasingly holistic. Year 12 students had to apply for the EPQ; pupils in years 8 and 9 had to apply for the AQA (2015a) FPQ. Information letters were sent electronically to parents. Applicants were assigned a supervisor, and the coordinator delivered the taught lessons outside of curriculum time. Presentations were given on two dedicated evenings. Two pupils had their FPQ upgraded to the HPQ, and one year 10 pupil completed a second HPQ. Projects were submitted for assessment in summer 2018.

In 2018, the AQA (2015c) EPQ was discarded in favour of the OCR (2017b) EPQ re-

vamped a year earlier. But the AQA specification was retained for four learners, three of whom were pupils in years 10 or 11 pursuing the EPQ. The offering to learners in years 12, 8, and 9 remained the same, except learners who had already achieved an FPQ could apply to undertake an HPQ. The PQs were now being treated as a hierarchy of qualifications through which learners might progress. The HPQ was offered to learners in years 10 and 11. Details were issued through assemblies, and information letters were sent to parents. The taught programmes were delivered in curriculum time, presentations occurred on one presentation evening, and, as before, projects were submitted in the summer. The same model is in use in the current PQ cycle (2019/2020), with the AQA EPQ specification retained for two year 11 pupils.

In the current cycle, 2019/2020, sixty-two year 12 students, four year 11 pupils, and three year 10 pupils applied to undertake the EPQ. Thirty year 7, nineteen year 8, and nine year 9 pupils applied to do the FPQ. Four year 8 pupils, five year 9 pupils, and five year 10 pupils applied for the HPQ. In total, there were 141 applicants. The number of staff volunteering to be supervisors exceeded seventy. The PQs feature prominently on the school's improvement plan.

Moderation feedback has been positive. In 2019, AQA wrote 'the centre provided very detailed comments...to support their award of marks' and 'had undertaken a rigorous standardisation procedure' (FPQ); 'it is evident that this centre understands the nature of the' HPQ; and 'candidates demonstrated a wide range of higher level skills' (EPQ). Elsewehere, AQA praised the 'exemplary centre [project] approval process' (FPQ). There has been some admonishment: 'the one area to note was that there was a little generosity shown in the allocation of marks for AO1' (EPQ).

Questions arising from contextual analyses

- Should the PQs be voluntary?
- Why do Riverside learners tend to outachieve and out-attain their counterparts in other schools?
- Why do teachers volunteer to supervise?
- Is SEN/EAL a barrier to access?
- What is the impact of doing two (or more) PQs in sequence?
- Should schools be responsible for marking projects?
- Why is the attrition rate high? Should this be a concern?
- Why is the proportion of learners from socio-economically disadvantaged backgrounds undertaking the PQs relatively low?
- What is the significance of high EPQ attainment by KS4 learners?

Sample

The majority of participants will be learners and alumni aged 12–20 years. Learners with different levels of PQ experience will be sampled, including learners who

- have completed or been awarded a PQ
- are presently undertaking their first, second, or third PQ
- started a PQ but withdrew
- are countenancing taking a PQ, and
- did not elect to take a PQ.

Learners with different PQ attainment and learners who engaged in different types of project (dissertations, artefacts, performances) will be sampled. Other variables will be learner age, learner gender, and awarding body.

School staff will be sampled to triangulate. Variables will include role (e.g. headteacher), subject specialism (e.g. mathematics), and teaching experience (e.g. NQT). Teachers new to supervision and those who have supervised many learners will be sampled.

Interviews

Interviews will take place on school premises on school days. The interview guides (appendix B) detail logistics. Planned questions will be formulated using contextual analyses, extant theory, emergent theory, and professional knowledge. They will be open-ended, used flexibly, and omitted if unneeded. Dialogical questioning (Fisher, 2003) will be used to probe responses. Techniques such as paraphrasing (McMurray et al., 2004) and repeating (Gillham, 2000) will also be used. A post-interview feedback sheet will be administered (appendix C).

Recording and transcription

Interviews will be recorded using the Olympus DS-9000. This features AES 256 bit real time encryption. Recordings will be transcribed in intelligent verbatim. Transcribers will sign a non-disclosure agreement adapted from IPO (2015) and approved by UCL's data protection officer. Conventions (appendix D) will optimise 'descriptive validity' (Maxwell, 1992). Timestamps will facilitate verification. Names linked to the setting will be pseudonymised. Fictionalisation will, if needed, strengthen deidentification. MAXQDA will auto-generate line numbering.

Data analysis

Data collection and analysis will proceed iteratively through three stages using constant comparison (Glaser & Strauss, 1967). This incorporates negative case analysis (Emigh,

1997; Given, 2008), an approach to bias reduction. In stage one, open coding, five coding techniques will be used: process (gerund), in vivo, concept, versus, and causation (Saldaña, 2016). In stage two, axial coding, Bhaskar's social cube (Bhaskar, 1993/2008a) will be used as the coding paradigm (Strauss, 1987) to ensure balance. Existing educational theory (Glaser, 2005) will be integrated in the last stage, theoretical coding. Core categories, the ones that best express mechanisms, will be identified. Throughout, pseudonymised memos will be written (Glaser & Strauss, 1967). These will be the locus of reflexivity (Jackson, 2011) and distanciation (Ricœur, 1973). MAXQDA's coding and memoing features will be harnessed, creating an audit trail (Halpern, 1983). Analysis will end when theoretical saturation (Faulkner & Trotter, 2017) is reached and the data set size is credible.

Member checking

Member checking (Lincoln & Guba, 1985) will be conducted. After individual interviews, participants will be emailed transcripts for optional comment. After saturation, in theoretical interviews (i.e. Pawson, 1996; Pawson & Tilley, 1997), the provisional theory will be taught to participants at Riverside and six comparator schools who will be prompted to explore it. Last, a draft theory will be distributed to participants for optional comment.

Case study

The diachronic learner case study will utilise longitudinal documentary evidence and interview data (appendix E). Because the case study will be written through the lens of the conceptual scheme, it will constitute triangulation (Bekhet & Zauszniewski, 2012; Cohen et al., 2018). Permissions will be obtained, and pseudonymisation and fictionalisation will protect identity. The report will be negotiated with the participant (and her parents).

Ethics

The research will adhere to BERA (2018) guidelines. I have DBS enhanced clearance. Headteacher authorisation will be sought. Safeguarding concerns will be referred to the designated safeguarding lead consonant with statutory guidance (DfE, 2019). The research will comply with data legislation.

No incentives/inducements will be offered, and the non-compulsory nature of participation will be underscored. Participants will be told about the research, invited to participate (e.g. appendix F), and given information sheets (e.g. appendix G), with at least 24 hours' lag time (P. Oliver, 2003) before interview. An extract from Stone (2010, pp. 39–41) will show how comments might be represented (Pickering & Kara, 2017). Invitees will not be pressed to reply to the invitation, making it easy not to opt in. Participants will sign a form (e.g. appendix H) to confirm their consent/assent. Proxy consent will be obtained

from parents of pupils aged 12–15 years. Participants' right to withdraw will be reiterated before each interview.

Reporting

COREQ guidelines (Tong et al., 2007) will be observed.

Schedule

2020–2021
Data collection/analysis (finish axial stage)

2022–2023
Data collection/analysis (theoretical stage)
Review literatures
Member checking interviews
Distribute draft theory (member checking)

2024
Write thesis
Submission
Viva
25.06.2024   Expected end

Progress

UCL ethical approval has been obtained. Eighty-two interviews have been conducted, lasting on average 46 minutes 17 seconds. The sample comprises 133 participants (appendix I). Seventy recordings have been transcribed (e.g. appendix J), producing 596,084 words. Thirty transcripts have been coded (open stage). Appendix K presents an extract of the nascent theory based mainly on these tentative codes. Included too is a provisional, incomplete theoretical glossary (appendix L). Lastly, appendix M narrates my professional PQ experience.

8,183 words, exclusive of end matter

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List of abbreviations

A-level Advanced level

AES Advanced Encryption Standard

Alps Advanced Level Performance System

AO assessment objective

AQA AQA Education, formerly the Assessment and Qualifications Alliance

AS-level Advanced Subsidiary level

ASDAN a UK awarding body

BERA British Educational Research Association

BTEC Business and Technology Education Council

CCEA Council for the Curriculum, Examinations, and Assessment, Northern Ireland

CEI Centre for Education and Industry, University of Warwick

CLA child looked after

COREQ Consolidated Criteria for Reporting Qualitative Research

DBS Disclosure and Barring Service

DELLS Department for Education, Lifelong Learning, and Skills, Wales

EAL English as an additional language

EBacc English Baccalaureate

EDI Education Development International

EHCP education, health, and care plan

EPQ Extended Project Qualification

FPQ Foundation Project Qualification

FSM free school meals

GCSE General Certificate of Secondary Education

HESA Higher Education Statistics Agency

HPQ Higher Project Qualification

IB International Baccalaureate

IPO Intellectual Property Office

IPQ International (Independent) Project Qualification

JCQ Joint Council for Qualifications

KS2 key stage 2

KS3 key stage 3

KS4 key stage 4

KS5 key stage 5

LSA learning support assistant

MAXQDA Data analysis software versions 18.2 and 20.0

NPD National Pupil Database

NQT Newly Qualified Teacher

OCR Oxford Cambridge and RSA Examinations

Ofsted Office for Standards in Education, Children's Services and Skills

PP pupil premium

PQ project qualification

QCA Qualifications and Curriculum Authority

RRREIC resolve, redescribe, retrodiction, elimination, correction

SAL student approach to learning

SEN special educational needs

SRL self-regulated learning

UCAS Universities and Colleges Admissions Service

UK United Kingdom (of Great Britain and Northern Ireland)

WJEC Welsh Joint Education Committee

A   JCQ data set

Table 3: Uptake of the project qualifications by gender, England, Wales, and Northern Ireland, 2009–2019

Year	EPQ F	EPQ M	HPQ F	HPQ M	FPQ F	FPQ M
2009	2,974	2,120				
2010	9,357	6,601	4,577	5,402	860	1,460
2011	13,926	10,173	10,896	10,992	2,262	2,610
2012	16,806	11,766	10,511	10,496	1,593	1,852
2013	17,853	12,548	6,115	6,469	1,249	1,456
2014	19,967	13,278	5,411	4,399	1,127	1,255
2015	20,369	13,195	3,063	2,568	467	508
2016	21,521	14,087	2,610	1,990	353	483
2017	24,056	15,957	1,868	1,525	282	366
2018	24,029	16,408	1,861	1,910	326	424
2019	23,535	15,317	1,772	2,110	282	298

Note. F = female; M = male
Source: provisional JCQ statistics for the summer sessions only

Table 4: FPQ attainment by gender, England, Wales, and Northern Ireland, 2010–2019

Year	F A*	F A	F B	F U	M A*	M A	M B	M U
2010	9.2	34.6	37.6	18.6	4.7	28.5	39.8	27.0
2011	14.9	37.3	31.9	15.9	5.4	30.1	39.6	24.9
2012	17.6	37.8	33.2	11.4	7.7	32.4	39.1	20.8
2013	16.1	41.5	35.8	6.6	7.8	38.5	42.4	11.3
2014	10.4	53.9	30.5	5.2	7.0	37.5	44.2	11.3
2015	25.5	36.2	30.4	7.9	14.8	27.7	41.4	16.1
2016	14.7	40.5	35.1	9.6	10.4	37.1	42.2	10.4
2017	35.1	39.4	24.1	1.4	19.7	31.4	41.3	7.7
2018	35.0	38.3	23.6	3.1	21.5	38.4	32.6	7.5
2019	32.3	40.7	23.1	3.9	19.1	37.3	34.9	8.7

Note. F = female; M = male
Source: provisional JCQ statistics for the summer sessions only

Table 5: HPQ attainment by gender, England, Wales, and Northern Ireland, 2010–2019

Year	F					M				
	A*	A	B	C	U	A*	A	B	C	U
2010	14.3	24.6	24.7	20.5	15.9	7.5	18.2	24.2	24.9	25.2
2011	10.7	22.4	26.4	24.2	16.3	5.8	16.3	25.4	29.2	23.3
2012	10.5	22.5	27.7	24.8	14.5	5.5	16.8	26.7	29.0	22.0
2013	12.8	24.7	22.9	23.6	16.0	5.3	16.7	22.7	29.1	26.2
2014	15.3	30.9	25.5	21.2	7.1	8.0	21.2	26.8	30.1	13.9
2015	19.0	29.2	24.0	20.0	7.8	13.9	21.5	23.8	27.2	13.6
2016	21.9	26.8	23.4	18.7	9.1	14.9	21.4	24.6	24.8	14.4
2017	23.2	30.1	23.4	16.9	6.5	16.9	20.6	25.8	24.9	11.8
2018	23.6	27.3	24.3	17.0	7.8	17.2	22.2	23.8	22.0	14.8
2019	20.8	26.2	23.9	19.8	9.3	18.2	26.0	24.4	21.3	10.1

Note. F = female; M = male
Source: provisional JCQ statistics for the summer sessions only

Table 6: EPQ attainment by gender, England, Wales, and Northern Ireland, 2009–2019

Year	F							M						
	A*	A	B	C	D	E	U	A*	A	B	C	D	E	U
2009	12.6	20.2	21.4	18.2	11.7	8.3	7.6	10.3	17.6	19.8	15.6	13.2	10.9	12.6
2010	12.9	17.5	19.7	18.8	14.2	9.6	7.3	10.6	13.7	16.5	17.0	15.2	14.2	12.8
2011	13.6	17.9	19.9	18.3	13.7	10.0	6.6	10.7	14.7	17.3	18.0	15.7	13.2	10.4
2012	15.1	20.0	20.2	18.1	12.4	7.6	6.6	11.5	16.3	18.4	18.1	14.8	10.7	10.2
2013	15.4	21.0	20.6	17.7	12.4	7.3	5.6	12.0	16.9	18.7	18.2	13.4	10.8	10.0
2014	17.4	24.5	23.0	17.2	10.1	5.2	2.6	14.1	19.9	21.8	18.8	13.1	7.7	4.6
2015	18.8	24.2	22.7	18.2	9.2	4.3	2.6	15.0	20.8	21.4	18.9	12.5	6.7	4.7
2016	20.5	26.6	22.4	16.3	8.5	4.0	1.7	15.5	22.0	21.5	19.4	11.9	6.4	3.3
2017	19.8	27.7	22.4	16.3	8.1	4.0	1.8	14.8	23.0	21.7	19.2	11.7	6.3	3.3
2018	21.3	28.3	23.3	15.3	7.4	3.1	1.3	14.7	22.8	22.0	19.2	12.1	6.1	3.1
2019	21.2	28.8	22.5	15.4	7.1	3.1	1.9	15.2	23.3	22.4	18.0	11.1	6.3	3.7

Note. F = female; M = male
Source: provisional JCQ statistics for the summer sessions only

B   Generic interview schedules

B.1   Individual interview schedule

Equipment and resource checklist
- Olympus DS-9000 digital audio recording device, >50% charge
- Grundig Digta 7 digital audio recording device (back up)
- Casio MQ-24-7BLL analogue quartz watch set to the correct UK time
- 'Only disturb if important: Research interviews taking place' laminated signs for doors
- Adhesive: Sellotape and/or Blu Tak
- Bottle of mineral water
- Box of tissues/hygienic wipes
- Copy (handwritten or printed) of prepared questions and theoretical notes
- Two Lamy Safari blue fountain pens (plus one spare ink cartridge) for note taking
- Paper and Post-it notes for note taking
- Blank student consent form, if signed one not received
- Interview feedback form
- Ink pen for use by student, including spare

Prearrangements: To do list
- Contact colleagues if needed e.g. if interview is scheduled during study time
- Contact school reception with name and expected arrival time of alumnus
- Check with site team for planned works, tests, fire drills, etc.
- Check electronic school diary and virtual message board for similar information
- Use school electronic system to book venue B if needed
- Affix 'Only disturb if important' notices to doors
- Carry out health and safety checks e.g. check that any protruding cables are covered
- Close windows if there is likely to be extraneous noise

Interviewee arrival
- If interviewee is an alumnus, make sure that he/she signs in at school reception
- If possible, meet and greet alumnus and then escort her/him, to venue A. If not possible, arrange for her/him to be escorted to the venue
- Where appropriate, officially register interviewee using the school electronic system
- If considered necessary, inform school reception and/or colleagues about the interviewee's involvement, including details of the venue and the expected start and finish time
- Check whether the interviewee would like any refreshments or to use the facilities
- Ask for the signed student consent form (if not already received)
- Confirm agreed timings and expected finish time

Preamble
- Invite interviewee to take seat (if not already taken)
- Welcome interviewee and thank her/him for taking part

- Remind interviewee that participation is voluntary and that he/she can stop taking part at any time for any or no reason
- Explain the point of the research: To understand what it is like for learners to do a project; thus, the interview
- Clarify confidentiality arrangements. Say who will have access to the recording/transcript
- Confirm that confidentiality will only be broken if there is an overriding reason
- Note that the research will be reported and that he/she may be quoted in reports
- Discuss pseudonymity arrangements; ask interviewee if he/she has a preferred pseudonym
- Mention that there is a small risk of identification by acquaintances
- Emphasise that there are no right or wrong answers; only honesty is called for
- Emphasise too that it is fine not to answer any question
- Also emphasise that the interviewee should speak normally. No need to be formal!
- Say that I may write some notes during the interview just to make sure I remember key points
- Check whether interviewee has any questions or concerns at this point
- Confirm that interviewee is still happy to take part

Opening the interview
- Switch the digital dictation device to recording mode
- Thank interviewee for taking part, using her/his real forename (to facilitate transcription)
- Ask a straightforward question about her/his project e.g. 'What was your project on?'

Closing the interview
- About 5 to 10 minutes before the end of the interview, indicate that it is ending e.g. by referring to a question as 'the last question'
- Time permitting, ask interviewee if he/she has any questions or if there is anything that he/she wishes to add
- Thank interviewee for taking part and for making a valued contribution to the research

Post-amble
- Explain the purpose of the interview feedback form
- Ask interviewee to complete the interview feedback form
- Remind interviewee that he/she will be emailed the pseudonymised transcript
- Mention/discuss the possibility of a follow-up interview if appropriate
- Remind interviewee that he/she will be emailed the member checking questionnaire
- Clarify that responding to the questionnaire would be helpful but is 100% optional
- Reiterate that the interviewee will be emailed a report on the research findings
- Check whether interviewee has any questions or concerns
- Explain what the interviewee can do if any questions or concerns arise
- If interviewee is an alumnus, escort her/him to the school reception
- Thank interviewee once again and bid her/him farewell

B.2   Group interview schedule

Equipment and resource checklist
- Olympus DS-9000 digital audio recording device, >50% charge
- Grundig Digta 7 digital audio recording device (back up)
- Casio MQ-24-7BLL analogue quartz watch set to the correct UK time
- 'Only disturb if important: Research interviews taking place' laminated signs for doors
- Adhesive: Sellotape and/or Blu Tak
- Bottle of mineral water
- Box of tissues/hygienic wipes
- Copy (handwritten or printed) of prepared questions and theoretical notes
- Two Lamy Safari blue fountain pens (plus one spare ink cartridge) for note taking
- Paper and Post-it notes for note taking
- *Either:* Pupil information sheets and blank pupil assent forms
- *Or:* Blank student consent forms, if signed not received
- Group interview feedback forms
- Staedtler 20 brilliant colours Triplus fineliner pens

Prearrangements: To do list
- Contact colleagues if needed e.g. if focus group is scheduled during lesson time
- Use school electronic system to book venue B if needed
- Check with site team for planned works, tests, fire drills, etc.
- Check electronic school diary and virtual message board for similar information
- Rearrange the furniture in the venue (A or B)
- Affix 'Only disturb if important' notices to doors
- Carry out health and safety checks e.g. check that any protruding cables are covered
- Close windows if there is likely to be extraneous noise

Participant arrival
- Where appropriate, officially register participants using the school electronic system
- If considered necessary, inform school reception and/or colleagues about participants' involvement in the focus group, including details of the venue and the expected start and finish time
- Check whether participants need to use the facilities
- Confirm agreed timings and expected finish time

Preamble
- Invite participants to take their seats (if they have not already taken them)
- Welcome participants and thank them for taking part
- Remind participants that taking part is voluntary and that they can stop taking part at any time for any or no reason
- Explain the point of the research: To understand what it is like for learners to do a

project; thus, the focus group

- Clarify confidentiality arrangements. Say who will have access to the recording/transcript
- Confirm that confidentiality will only be broken if there is an overriding reason
- Note that the research will be reported and that participants may be quoted in reports
- Discuss pseudonymity arrangements; ask participants if they have preferred pseudonyms
- Mention that there is a small risk of identification by acquaintances
- Stress that participants are expected to keep what one another says private, but that this privacy cannot be guaranteed
- Emphasise that there are no right or wrong answers; only honesty is called for
- Emphasise too that it is fine not to answer any question
- Also emphasise that the participants should speak normally. No need to be formal!
- Say that I may write some notes during the focus group just to make sure I remember key points
- Check whether participants have any questions or concerns at this point
- Confirm that participants are still happy to take part

Opening the focus group
- Switch the digital dictation device to recording mode
- Thank participants for taking part, using their real forenames
- Invite each participant to say her real name and something about her project (to facilitate transcription)
- Start with a straightforward warm-up question, either to the group as a whole (e.g. 'what did you think about doing your project?') or to a particular participant (e.g. 'why did you choose that topic?')

Closing the focus group
- About 5 to 10 minutes before the end of the focus group, indicate that it is ending e.g. by referring to a question as 'the last question'
- Time permitting, ask participants if they have any questions or if there is anything that they wish to add
- Thank participants for taking part and for sharing their thoughts candidly

Post-amble
- Explain the purpose of the focus group feedback form
- Ask each participant to complete a focus feedback form
- Emphasise the need for due privacy and sensitivity
- Say what privacy means: 'the Chatham House rules' (Alderson & Morrow, 2011, p. 35)
- Mention/discuss the possibility of a follow-up focus group if appropriate
- Remind participants that they will be emailed the member checking questionnaire
- Note that responding to the questionnaire would be helpful but is 100% optional
- Reiterate that participants will be emailed a report on the research findings
- Check whether participants have any questions or concerns

- Explain what participants can do if any questions or concerns arise
- Thank participants once again and bid them farewell

C Feedback form

Interview feedback

Name (optional): _____

	No	A bit	Yes
I enjoyed taking part in the interview	☐	☐	☐
My understanding of doing a project has improved	☐	☐	☐

Any comments?

D Transcription conventions

Adapted from Torrance and Pryor (1998)

T01	interview/transcript number
102	transcript line number
(*)	inaudible (probably one word)
(**)	inaudible phrase
(***)	longer inaudible passage e.g. sentence
(*hello)	inaudible word; 'hello' suggested by transcriber
-	short pause or soft break
disapp-	incomplete word
CRITICAL	word emphasised or said loudly
=	rapid change of speakers (used at the end of an utterance and the start of the next utterance)
>yes<	simultaneous speech
{note that...}	transcriber's comment
~	slowing or similar invitation to other(s) to complete sentence or respond
[01:21:03]	timestamp from digital audio recording ([hh:mm:ss])
…[ ]…	omission from transcript: extraneous material e.g. interruption
…[X]…	omission from transcript to safeguard participants
Sinéad:	interviewee (pseudonym)
JS:	interviewer, Jed Stone
%John%	pseudonym of someone/something referred to

F   Example participant invitation letter

Dear

I am delighted to invite you to take part in some research. The research being done with University College London (UCL). It focuses on students' experience of the FPQ, HPQ, and EPQ.

You are asked to take part in a research interview and to complete an electronic questionnaire. The interview will take place in school at a time agreed with you. The questionnaire can be completed either in school or at home. My hope is that you will find taking part both enjoyable and educative.

An information sheet with full details about the research is attached.

If you are happy to take part in the research, then I should be grateful if you would give your signed consent. Please complete and sign the student consent form. I've attached this also. Please return this to me at a time that suits you.

Please feel free to contact me if you have any questions or concerns. I am, of course, happy to discuss in person.

May I take this opportunity to thank you for thinking about taking part.

Yours sincerely

JStone

J. Stone
Lead Practitioner
jstone@riverside.school.uk

G   Example participant information sheet

Research into the FPQ, HPQ, and EPQ

Information sheet for students (Version 3.0)

You are invited to take part in some research. Our school is doing this research with University College London (UCL). It is up to you whether you take part. So it is important for you to know why the research is being done. You also need to know what taking part means for you. Please read this information carefully. Discuss it with others if you wish. Contact me if there is anything that is not clear or if you would like more details. My contact details are below.

What is the point of the research?
To understand students' experience of doing a project qualification: the FPQ, HPQ, and EPQ. This will help improve how our school provides for these qualifications in the future.

Why have you been chosen?
Because you have completed, partly completed, or considered doing a project qualification.

Do you have to take part?
No. You will only take part if you decide to freely.

What will happen to you if you decide to take part?
You will take part in a research interview. You'll have the chance to share and explore your thoughts about your experience of doing your project. The interview will take place in school on a school day and last about 30 minutes. The actual time slot will be agreed with you. The research is scheduled to be done in years 2020 and 2021. The research project as a whole is scheduled to finish on 25 June 2024. You may also be invited to take part in a follow-up interview, which will also be optional.

Will you be recorded and how will recordings be used?
Yes, interviews will be audio recorded. Recordings will be used for analysis only. No other use will be made of them without your written permission. No one outside of the research project, including at our school and at UCL, will be allowed to listen to them. Recordings will be stored securely and destroyed when the research project is finished.

What if you start to take part but want to stop?

That is fine. You can stop at any time and do not need to give a reason. The decision to stop taking part does not result in any penalty or loss of benefits to which you are otherwise entitled. Your school grades will not be affected. If you decide to withdraw during the research, then the information that you've given up to that point will still be analysed. However, you will not be quoted in any report on the research.

What are the possible disadvantages and risks of taking part?

The proposal was formally approved by the UCL Research Ethics Committee on 7 June 2019 and deemed minimal risk. Those who already know about you or your project may be able to work out your identity in research reports. A false name will be used to make this hard to do. You may choose your false name if you wish! If needed, we will take other steps to protect your identity. Our school email system is monitored by our school's ICT support team. This protects you. But it means that what you say in emails to me isn't 100% confidential.

What are the potential benefits of taking part?

Hopefully, you'll enjoy the interview and find that it helps to improve your understanding. The research may benefit any student who goes on to do another project qualification or to study at university. Again hopefully, the changes that our school makes based on the research will improve how students are supported in the future.

What if something goes wrong?

If you have a concern, please contact me, Jed Stone, in the first instance. I will do my best to address your concern. My contact details are below. However, if your concern is not dealt with to your satisfaction, then you can contact the Chair of the UCL Research Ethics Committee to make a formal complaint:

> Research Ethics Coordinator
> Office of the Vice-Provost (Research)
> University College London
> 2 Taviton Street
> WC1E 6BT
> 020 76798717 ext. 28717
> ethics@ucl.ac.uk

Will your taking part in this project be kept confidential?

The information that is collected from you will be kept private. You may be quoted or paraphrased in written and oral reports on the research. But you will be not be able to be easily identified in these reports.

Your privacy will be respected subject to legal constraints and school policy. For example, if you say something that indicates that you are at risk of harm, then what you say will be shared with members of staff at our school responsible for making sure that you are safe.

How will what you say be reported?

The 'Example report' document, included with this information sheet, gives you an indication of how you might be quoted in the full report.

What will happen to the results of the research project?

You will be sent a report on the research by school email. A report on the research will also be shared with staff at our school. UCL Publications Service will publish the full report on the UCL open access electronic portal.

Privacy notice

The controller for this project will be University College London (UCL) ('we', 'us'). The UCL Data Protection Officer provides oversight of UCL activities involving the processing of personal data and can be contacted at data-protection@ucl.ac.uk. This 'local' privacy notice sets out the information that applies to this particular study. Further information on how UCL uses participant information can be found in UCL's 'general' privacy notice: https://www.ucl.ac.uk/legal-services/privacy/ucl-general-research-participant-privacy-notice. The information that is required to be provided to participants under data protection legislation General Data Protection Regulation 2018 and Data Protection Act 2018 is provided across both the 'local' and 'general' privacy notices.

The categories of personal data used will be as follows:
- forename and surname
- school email address
- age and year group
- gender
- project title(s)
- school performance data e.g. project mark and grade

The lawful basis that will be used to process your personal data are: 'Public task' for personal data and 'Research purposes' for special category data. Your personal data will be processed so long as it is required for the research project. It is likely to be required until 15 December 2023. If we are able to anonymise or pseudonymise the personal data you provide we will undertake this. We will endeavour to minimise the processing of personal data wherever possible. If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at dataprotection@ucl.ac.uk.

Who is organising the research?

The research is being done with UCL, a world leading centre for education research. It was ranked number one for education worldwide in the 2014, 2015, 2016, 2017, 2018, 2019, and 2020 QS World University Rankings. The UCL data protection reference of the research project is Z6364106/2019/06/37 social research. Please note, however, that UCL will not own the data.

The research accords with the ethical guidelines of the British Educational Research Association: https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educationalresearch-2018

Contact for further information

> Jed Stone, Lead Practitioner
> Riverside Academy
> Riverside Lane
> Riverside
> RV5 SDE
> 01234 0123456789 ext. 456
> jstone@riverside.school.uk

How do you give your consent to take part?

If you are happy to take part, please fill in the student consent form attached. You can then pass this to me.

Please keep a copy of this information sheet for your own records.

Many thanks!

JStone

Jed Stone

H   Example participant consent form

Research into the FPQ, HPQ, and EPQ

Student consent form (Version 3.0)

	No	Yes
I have read the student information sheet	☐	☐
I understand that the research involves:		
taking part in an audio recorded interview	☐	☐
I know that:		
I can withdraw from the research at any time, without giving a reason	☐	☐
I do not have to answer any question if I do not want to	☐	☐
there are a few small risks if I take part (see info sheet)	☐	☐
I might be quoted, under a false name, in reports on the research	☐	☐
what I say will be kept private unless there is a good reason	☐	☐
my school grades will not be affected	☐	☐
I will be sent a report on the research by school email	☐	☐
I know that some personal info about me might be used:		
my name, age, year, gender, school email, and project title and grade	☐	☐
I know that this personal info will only be used to support the research	☐	☐
I freely agree to take part in the research	☐	☐

Name of student: _____

Student signature: _____

Date: _____

Please return the completed and signed consent form to me, J. Stone, at a time that suits you. Thank you!

I Participant profiles

Table 8: Staff participants, including supervisory experience

Surname	I[a]	Specialism	Position	FPQ	HPQ	EPQ[b]	EPQ[c]	C[d]
Andrews	34	Drama	deputy headteacher	✓		✓		✓
Atkinson	61	Technology	teacher	✓				
Atwood	75	English	teacher	✓		✓		
Auden	40	English	HoD	✓				✓
Barrett	64	Music	HoD	✓	✓		✓	
Beaumount	52	French	assistant headteacher	✓				
Benjamin	42	Religious Studies	teacher	✓		✓		
Black	54	Biology	teacher	✓	✓			
Brians	62	History	teacher	✓		✓		
Carpenter	79	Technology	lead practitioner	✓	✓			
Cornwell	62	History	HoD		✓		✓	
Edmund	78	Mathematics	teacher	✓		✓	✓	
Engels	43	Sociology	teacher			✓	✓	
Eveson	31	Art	assistant headteacher	✓		✓		✓
Fourier	66	English	teacher	✓		✓	✓	
García	70	Spanish	lead practitioner				✓	
Harrison	60	Psychology	HoD		✓	✓	✓	
Houghton	63	Physics	teacher	✓	✓			
Howard	73	Science	teacher	✓				
Jackson	48	History	headteacher			✓	✓	
Jacobs	55	Geography	year head		✓			
Johns	62	History	teacher		✓	✓		
Lamb	41	Drama	year head				✓	
Linford	46	Chemistry	teacher			✓		
Lloyd	71	Mathematics	teacher	✓				
Marchant	49	Vocational	HoD				✓	
Martin	38	Support staff	exams officer					
Murray	62	History	teacher			✓		✓
Olivier	37	EAL	LSA	✓			✓	
Perry	65	English	teacher	✓	✓			
Peters	44	Mathematics	HoD	✓		✓		
Phillips	76	Mathematics	teacher	✓	✓			
Porter	50	Geography	HoD	✓			✓	
Russell	62	History	HoD	✓		✓		
Schmidt	51	German	HoD	✓	✓			
Siddiqui	58	Computer Science	teacher					
Star	45	Religious Studies	assistant headteacher	✓	✓	✓	✓	
Stewart	74	History	SENCO		✓	✓		
Twyford	47	English	teacher	✓	✓	✓		
West	67	Physical Education	HoD				✓	
White	39	Mathematics	teacher				✓	
Wilde	59	Psychology	LSA	✓				
Williams	69	Geography	teacher	✓	✓			
Wright	77	Art	teacher					
Young	68	Economics	teacher			✓		

Note. EAL = English as an additional language; HoD = Head of Department;
LSA = learning support assistant; SENCO = special educational needs coordinator.
[a]Interview number. [b]AQA specification. [c]OCR specification. [d]coordinator.

Table 9: Learner participants, including project qualification attainment, forenames A–I

Forename	I[a]	G[b]	Age[c]	FPQ	Year	HPQ	Year	EPQ	Year	Note
Alexandra	30	F	14			A*	2019			
Amelie	56	F	13							
Amy	5	F	15	A	2018					
Ana	9	F	14	A*	2018	A*	2019	→		
Aria	56	F	13							
Ava	20	F	15	A*	2018					
Camila	57	F	14							
Cara	5	F	15	A	2018					
Cassandra	24	F	12	→						
Charlotte	72	F	12	→						
Chelsea	17	F	12	→						
Cordelia	2	F	13	A	2019					
Daisy	9	F	15	A*	2018					
Dannika	24	F	12	→						
Daphne	24	F	12	→						
Doris	32	F	14							
Eleanor	6	F	15			A*	2017	A	2018	
Elena	16	F	19					A	2016	
Elizabeth	1	F	17					A*	2019	
Eloise	22	F	15	A*	2018	X	2020			
Emilia	36	F	16							
Emily	12	F	15	A*	2018	A*	2019			
Erin	21	F	19					A*	2017	
Fatima	28	F	14	A	2019	→				
Felicia	8	F	13	A*	2019					
Fleur	12	F	15	A*	2018					
Freida	11	F	16			A	2017	A	2018	
Genevieve	2	F	13	A*	2019	→				
George	29	M	19					B	2018	
Georgina	57	F	13							
Grace	10	F	19					A*	2018	
Gracie	57	F	14							
Hannah	80	F	18					→		
Harry	27	M	19					A*	2018	
Hazel	9	F	14	A*	2018					
Henrietta	2	F	13	B	2019	→				
Iris	24	F	12	→						
Isla	24	F	12	→						

Note. F = female; M = male; X = withdrew; → = currently undertaking.
[a] Interview number.
[b] Gender.
[c] Age on date of (first) interview.

Table 10: Learner participants, including project qualification attainment, forenames J–Z

Forename	I[a]	G[b]	Age[c]	FPQ	Year	HPQ	Year	EPQ	Year	Note
Jacky	32	F	14							
Jasmine	13	F	17					→		
Jenn	57	F	14							
Jenny	17	F	12	→						
Jessie	15	F	18					A	2019	
Johanna	25	F	14	B	2018	→				also I53
Karl	26	M	20					A*		
Karren	57	F	13							
Lauri	3	F	13	B	2019					
Leah	18	F	17					X	2020	
Llio	2	F	13	A	2019					
Lucy	9	F	15	A*	2018	A	2019			
Luna	19	F	15	A*	2018	A*	2019			
Lydia	9	F	15	A*	2018	A*	2019	→		
Martha	28	F	13	A	2018					
Mary	2	F	13	A*	2019	→				
Maryanne	7	F	18					A*	2019	
Mathilda	56	F	13							
Meghan	12	F	15	A*	2018			A*	2019	
Melissa	3	F	13	A*	2019					
Mia	25	F	13	A*	2018					
Miranda	53	F	14	A*	2019	→				
Molly	17	F	12	→						
Natasha	82	F	16	X	2018	→				
Nicole	57	F	13							
Nora	4	F	16			A*	2017	2018		
Patricia	8	F	12	A*	2019					
Penelope	8	F	13	A*	2019					
Pippa	24	F	12	→						
Rebecca	81	F	17					→		
Roisin	82	F	16			→				
Rose	23	F	17					→		
Ruby	5	F	15	A*	2018	A*	2019			
Sara	3	F	13	B	2019					
Sarah	5	F	15	A*	2018	→				
Teresa	28	F	14	A*	2019	X	2020			
Tessa	35	F	16							
Theodora	32	F	14							
Violet	14	F	12	→						also I17, I33
Willow	56	F	14							
Yasmeen	57	F	13							

Note. F = female; M = male; X = withdrew; → = currently undertaking.
[a] Interview number.
[b] Gender.
[c] Age on date of (first) interview.

J   Transcript excerpt

1   **T10**

2   **JS:** [00:00:00] ...[]... *{JS sets up the equipment}*

3   Grace, please may I take this opportunity to thank you for attending the

4   interview today. We're really grateful that you've made the effort to travel all

5   the way here. Thank you.

6   **Grace:** [00:00:20] You're welcome.

7   **JS:** [00:00:20] May I start with a question about your EPQ?

8   **Grace:** [00:00:20] Uh-hm.

9   **JS:** [00:00:26] What was your EPQ about?

10 **Grace:** [00:00:29] It was about the death penalty and whether it should be

11 abolished worldwide, and part of the—Treaty and the Convention on Human Rights

12 Law. About whether the article that allows it to still be used in certain

13 countries, whether that should just make it really clear that it shouldn't be

14 allowed across the world.

15 **JS:** [00:00:50] Why did you choose that topic?

16 **Grace:** [00:00:54] It was mainly because I wanted to do Law at university and

17 it gave me the chance to look at like human rights law, and I've always thought

18 that was more interesting? Because it's quite, you know, a modern day topic. A

19 lot of people can benefit from human rights and looking into it, and I think

20 it's quite interesting when we actually know what our human rights are, and what

21 the laws say about it. And the death penalty was a really controversial topic,

22 there's a lot of the stuff in America that was going on at the time.

23 it's always just really stood out to me and I knew that I wanted to know more

24 about it, so it gave me the chance to look into that a little deeper.

25 **JS:** [00:01:32] Is that why you chose to pursue an EPQ in the first place?

26 **Grace:** [00:01:38] Yeah. Well, mainly because EPQ is all about you having the

27 independence to research. So, obviously when you do History coursework, or

28 something like that, you have to research on your own, but you're still guided

29 in a direction. And it's not like - yeah you enjoy doing History A level, but

30 it's not something that you've chosen yourself to investigate. You're given a

31 question and you're answering it. Whereas the EPQ was more to see how I would do

32 when I was put in the scenario, where I had to find the research for myself, and

33 kind of - I started off in a really broad topic of just the death penalty, and

34 then I knew I wanted to do it from a legal perspective and I spoke to loads of

35 people about how to narrow it down and what route. And I think that was a really

36 important part of being able to look at a topic as a whole and then finding your

37 own way, and the path you wanted to take. So I thought that was quite
38 interesting.

39 **JS:** [00:02:31] You spoke to loads of people?

40 **Grace:** [00:02:33] Well, I spoke to - so I spoke to my—supervisor? - is that?~

41 **JS:** [00:02:39] >Yeah<.

42 **Grace:** [00:02:40] Yeah, so I spoke to my supervisor, who was lovely and really
43 really helpful and gave some ideas, and then I spoke to quite a few of the
44 History department because they obviously do a lot of the research and I was
45 quite familiar with them, having to do an A level. And then it was one of the
46 teacher's brothers had studied Law at Cambridge, so he gave me a lot of advice
47 on how to look at it and things to pick up. And he suggested one route, which I
48 didn't actually end up taking because I thought it was too legal at that point
49 and I wasn't really aware of like the in-depth view of that. And then I spoke to
50 - just various other members of staff really, and being like 'How would you go
51 about this?' and then it kind of - I had all these perspectives and I was able
52 to look at them on a surface level and then the ones that I found more
53 interesting or stood out to me, I looked at even more.

54 **JS:** [00:03:38] Members of staff outside of the History department as well?

55 **Grace:** [00:03:40] Yeah, members of staff outside the History department,
56 students I spoke to, people in years above that had done Law, and I was like
57 'How did you - how have you found Law in general?' and then I was like
58 'Have you looked at any of this stuff, do you know about the human rights?'
59 and they were like 'Yeah, it's really interesting, it's a really good topic
60 to look at' so (**).

61 **JS:** [00:04:03] When you say 'years above', did you mean when you were in Year 12
62 talking to 13s, or when you were in Year 13 talking to people at university?

63 **Grace:** [00:04:10] I did mine in Year 13 -

64 **JS:** [00:04:10] >Thirteen<.

65 **Grace:** [00:04:10] Yeah, so it was people in university that I was speaking to
66 that I knew had either done the EPQ or had - or were doing Law.

67 **JS:** [00:04:19] How did you know who those people were? *{laughing}*

68 **Grace:** [00:04:22] Just from - just from school. *{laughing}*

69 **JS:** [00:04:25] Oh okay.

70 **Grace:** [00:04:25] Just from knowing them from school, and knowing
71 friends of friends and knowing what they were like, so yeah. *{both laughing}*

K   Early findings (extract)

This chapter presents a realist theory of the project qualifications. The theory is derived systematically from the accounts of learners, alumni, parents, and teachers at Riverside. These accounts are abductively redescribed and reframed by a priori realist concepts. I also draw from concepts housed in other sources, including extant empirical studies. The educational impact of doing a project qualification on learners is described, and the mechanisms generating this impact are retroduced. The theory, then, is an explanatory one.

Quotations from participants are integrated into the exposition to illustrate, and, on occasion, to illuminate. For the theory is grounded firmly in their accounts. Statistics relating to the groundedness of each concept in the data set is included in appendix **??**. The pseudonym of each speaker is included and can be cross-referenced to the participant profiles in appendix I. Each quotation is referenced using parentheses to the transcript from which it is extracted. '(T07, 662–664)', for instance, refers to transcript number 7, line numbers 662 to 664. This facilitates verifiability. Occasionally, for the sake of deidentification, the participant name and transcript reference are omitted and singular epicene pronouns such as 'they' are used.

A glossary of theoretical terms is available in appendix L to aid comprehension. The term 'learner' is used consistently to encompass both school pupils (12–16 year olds) and sixth form students (16–18 year olds). It is less precise but clearer than the term 'educand'. 'Participant' denotes research interviewees. The word 'teacher' includes school staff such as teaching assistants who act as teachers. I use the word 'coordinator' as a convenient shorthand for 'centre coordinator'. I use the word 'supervisor' rather than 'mentor' to refer to that role because this is the term used by the biggest awarding body, AQA.

The chapter starts with a precis and then a brief outline of the theory. It is then divided into five main sections. The first section concerns freedom, which is a necessary condition of the process of independent reflexive engagement, the subject of section two. The third section treats of supportive interpersonal relationships, a mechanism that potentiates both independent reflexive engagement and learner self-investment. Next, the outcome of independent reflexive engagement, namely self-education, is described. The last section concerns self-investment, the mechanism that is a key finding of the research.

Precis

At its most abstract, the theory can be articulated in seventeen words: The project qualifications liberate learners to engage independently and reflexively. Self-invested learners self-educate, especially with resonant support.

Outline

In skeletal form, the theory can be expressed in eight propositions.

(i) Learner freedom is a necessary but not sufficient condition of independent learner engagement. The greater the degree of freedom, the greater the potential for independent engagement.

(ii) The project qualifications emancipate learners from heteronomous schooling so that learners are autonomous.

(iii) Reflexivity supervenes on independent engagement and therefore tends to learner self-education, if and only if learners are self-invested.

(iv) The heavier the self-investment, the stronger the tendency.

(v) Although supportive interpersonal relationships, particularly the learner-supervisor relationship, are insufficient for either independent reflexive engagement or self-investment, supportive relationships potentiate both.

(vi) Therefore, the stronger the supportive interpersonal relationships, the stronger the tendency to self-education.

(vii) The educative effect of doing a project qualification on a self-invested learner who is supported resonantly is substantial.

(viii) The effect on a heavily self-invested learner with highly resonant support is transformative.

Freedom

Learner freedom is a necessary, but not a sufficient, condition of independent reflexive engagement. Freedom comprises four deepening levels: (i) agentive freedom, (ii) positive and negative freedom, (iii) emancipation, and (iv) autonomy (see Bhaskar, 1993/2008a).

Agentive freedom

(i) Agentive freedom is tacitly and foundationally presupposed. Hence, agency is both necessary and 'built' (Stephenson & Isaacs, 2019, p. 392). Learners with insufficient agency are therefore unable to access the project qualifications. Thus, the project qualifications are likely to be beyond what the vast majority of primary school aged children can accomplish. *'Even year 6 is probably a bit too young because it's a lot for them to handle'* (Violet, T33, 739–740). Less able learners and learners with language or cognitive difficulties tend to struggle to engage in the project qualifications. *'They have to have a certain level of academic ability...to start doing it'* (Mx. Wilde, T59, 104–105). However, the level 1 FPQ is accessible to most less able learners and to those with moderate cognitive or language difficulties. Speaking of her work at another school, Mx. Auden recounted that *'we had some students who were not going to be able to do their GCSEs because of their learning needs. I was doing this [the FPQ] with them as an alternative'* (T40, 116–117, 124).

Positive and negative freedom

Positive and negative freedom manifests itself through voluntary participation. Learners at Riverside freely choose to undertake a project qualification and are almost never under compulsion to do so. Initial participation is voluntary. As Maryanne noted, *'the EPQ is not mandatory. It's not compulsory. You sign up for the EPQ...you don't have to do it at all'* (T07, 662–664). Moreover, learners are at liberty to withdraw from a project qualification at any time. Mia said that *'if you want to drop out, you can'* (T25, 961). Thus, if necessary, learners are free to override the wishes of overzealous parents. Cordelia reported that one of her peers *'dropped out at the very beginning...because her parents signed her up for it, and not her. Then she found out and didn't want to do it'* (T02, 777–779).

Voluntarism extends partially to teachers who must volunteer to support students as supervisors; however, once staff have volunteered, it is incumbent on them not to withdraw. According to Mx. Twyford, *'I don't have to be an EPQ supervisor, but if you sign up to something you are carrying it through...it's semi compulsory'* (T47, 107–108).

Finally, no one is conscripted to attend presentation evening: the audience of a learner is a *'voluntary audience'* (Mx. Twyford, T47, 221).

One writer, a teacher at an independent school, speculated that 'most top schools in the UK have made the completion of an EPQ (or an internal equivalent) compulsory for all Year 12 students' (Stockland, 2019). [brief discussion of compulsory PQ]

Emancipation

More deeply, the project qualifications are emancipatory: they liberate learners, almost entirely, from heteronomous schooling, a power$_2$ (domination) (Bhaskar, 1993/2008a) constraint. Heteronomous schooling is schooling in England, Wales, and Northern Ireland dominated by high stakes written examinations: GCSEs for 14–16 year olds and A levels for 16–18 year olds. There are many of these examinations to prepare for, especially at GCSE. Nora, talking about her GCSEs, said that *'you're doing ten or eleven subjects and you've got almost 30 exams which are squished into four weeks'* (T20, 760–761). And there is much riding on them, especially A levels. As Elena observed, *'A levels, that is what your university choice is dependent on'* (T16, 77–78).

Heteronomous schooling secretes an epistemology in which knowledge is pre-defined. Knowledge is divided into discrete curriculum subjects. Subject knowledge is pre-specified in syllabuses written by awarding bodies and pre-digested in textbooks written according to those syllabuses. *'The foundation upon which you create your learning and your knowledge is the textbook or the specification'* (Rose, T23, 120–121). Answers to questions are also largely pre-determined. *'There's a mark scheme, and if your answer doesn't meet the mark scheme...then it's wrong'* (Luna, T19, 999–1001). Axiologically, the value of knowledge is justified in accordance with its relevance to the examinations. *'[teachers] always say how you should be revising everything we've done all the time because it will be in our GCSEs, so it's important'* (Willow, T56, 67–68).

The features of heteronomous schooling are present by osmosis (and therefore less prominently) at key stage 3, especially in year 9. The prospect of GCSE examinations can loom large in pupils' consciousness. *'We are in year 9 and we've got GCSEs in the next few years and everybody is a little bit worried'* (Willow, T56, 53–54). Most teachers constantly emphasise GCSE examinations to younger learners. Teachers *'always say "you got GCSEs" and "this will be in your GCSE test in a few years"'* (Amelie, T56, 64, 66). Their mindset remains framed by examinations. *'Every single half term, you've done one [test] and they're already talking about preparing for the next one'* (Mathilda, T56, 182–183). Therefore, *'some people [i.e. teachers] say secondary school is an exam factory'* (T35, Tessa, 169–170). Bemoaning heteronomous schooling is a common refrain amongst teacher unions and scholars alike (e.g. Coffield & Williamson, 2012; Courtney, 2018). What is not widely recognised is that most teachers appear to be complicit in sustaining and reproducing this 'examination factory' culture.

This epistemology has pedagogical effect: it engenders dependent learning. The teacher is cast as a (benevolent) dictator. Nora stated that *'a teacher tells you the information that you need to know'* (T04, 456–457). Teaching is reduced to imparting. *'In all of my lessons I just get spoonfed everything'* (Jessie, T15, 1008–1009). Correspondingly, the learner is cast as a rather passive dependent. *'You get a bit lazy because someone's going to explain it to you'* and you are therefore *'submissive to a teacher'* (Elena, T16, 464–465, 470). The two essential learning activities are practice and revision because examinations demand the formulaic application of memorised content. Erin, a highly successful alumna, said that *'For my A level exams, my revision consisted of learning the textbook from front to back...then I had to use those points that I'd learned and put them into an argument...[by] rejumbling them'* (T21, 185–189). Similarly, Jessie said that, *'when it comes to revising, it's not a case of learning it yourself, it's a case of going over what you've been told'* (T15, 1009–1010). There is some, but limited, scope for learner reflexivity, even in the humanities and arts. In English Literature, asserts Ava, *'you spend your time learning quotes, and learning themes, and learning about the characters, rather than actually learning how to approach a text on your own'* (T20, 166–167).

Although Business and Technology Education Council (BTEC) qualifications (an alternative to GCSEs and A levels) involve a lower proportion of examinations—42% non-examined assessment—dependent learning is present even more intensely. *'It's very much teach-led...you can't allow them to be independent...independent learning with BTEC learners doesn't really happen...even when they are doing independent learning...in terms of coursework...they're still being heavily guided by...structured [checklists] and guidance sheets'* (Mx. Marchant, T49, 72–78).

The dependent learning of pre-set knowledge, although academically challenging, constitutes an impoverished education. The experience of learners tends to be negative, and indeed Sisyphean, particularly at A level. *'I hated A levels with every bit of me'*, confessed Jessie (T15, 758). *'GCSEs and especially A levels really dragged me [down] and the sense of achievement was "thank God I survived that,"'* added Elena (T16 752–753).

Moreover, the knowledge that learners acquire and develop is typically unempowering, and the understanding that they forge is typically superficial. This is because the telos of heteronomous schooling is the quantification of learners. *'You're being graded on how much information you can splurge in the right technique, exam technique, in the right way in a certain timeframe'* (Elena, T16, 699–700). Pace Young (2008), disciplinary knowledge is not, ceteris paribus, powerful knowledge.

Autonomy

Emancipation from heteronomous schooling liberates learners to be autonomous and therefore to engage independently and reflexively. *'The EPQ is a demonstration of the flaws in that system,'* that is, the heteronomous schooling system (Rose, T23, 1016–1017). Autonomy is the freedom to reason for oneself and act on one's own reasons, even if those reasons are ultimately irrational. *'You have to think for yourself and make decisions for yourself'* (Teresa, T28, 938). The concept autonomy is closely allied with the concept independence, the enactment of autonomy. Learners are independent when they take charge and are in control of all aspects of their project work and management. Meghan said that, compared to normal lessons, *'It was more independent, and so you had much more control over what you were doing'* (T12, 40–41). Note that taking the concept independence with the concept 'student sovereignty' (Stoten, 2013, p. 74).

More specifically, learners can exercise freedom over the project subject matter. Learners must decide the content, or topic area, of their project. This liberates learners to pursue their passions and to extend their learning beyond pre-set syllabuses and curriculums. Meghan's words capture all four of these concepts: *'You had such large choice of topic. You could pick whatever topic you wanted to pick, certain topics you wouldn't get necessarily taught in school. It gave you a chance to focus [on] your interests'* (T12, 483–486). The removal of artificial subject boundaries opens the possibility of interdisciplinarity and for learners to do work in disciplines not part of the school curriculum. As Henrietta, a year 8 pupil, observed, her project related to *'mental health, which is Psychology AND Geography'* (T02, 521–522). (Psychology is not part of the school's key stage 3 curriculum.) In creating *'scope for a child to develop down their [own] preferred route'* (Mx. Peters, T44, 15) the project qualifications counteract the narrowing of the curriculum.

Learners also marshal the method of investigation that they use and indeed the kind of project that they pursue. Lucy felt that if *'I interviewed too many people it will be too much. So I thought I'd just do a couple'* (T09, 257–258). Moreover, in the absence of pre-fabricated answers, learners can express themselves: their own interpretations, thoughts, and meanings. A safe space is created for critical engagement, encompassing self-criticism. *'It gave me a good platform to criticise whatever I want to criticise and talk about whatever I wanted to talk about without judgement'* (Karl, T26, 191–192).

Throughout the project process, learners are free to decide how to manage all aspects of their project. Fatima averred that *'it's your own will; you [work] at your own pace; you*

know what's right for you. No one is controlling you...it's just you' (T28, 715–717). Deciding how to engage includes deciding whether to engage. *'Whenever I think that I should watch TV I just said: I'll do my FPQ [instead]'* (Dannika, T24, 229–230).

In the same vein, learners exercise much freedom over the educational support they receive. Their first major choice is their choice of supervisor, subject to the consent of the teacher chosen. Cassandra stated that *'I chose Mr. Harvey because he was my favourite teacher and was very helpful...his classes were fun'* (T24, 138–141). Similarly, learners choose when to convene meetings with their supervisor, subject to availability. This includes setting the agenda: teachers *'can't organise the meetings or anything. You have to do that yourself'* (Mary, T02, 1191).

Freedom tends to be experienced by learners as maximal. *'No murder!'* joked George (T29, 279). More seriously, Mia said that *'we were given many choices...I didn't really feel that there were many limits at all'* (T25, 636, 640). Participants, for example, felt free from unwanted censorship and thereby free to engage with sensitive and controversial topics; one participant, for instance, argued in their project, and on presentation evening, that incest between consenting adults was justified.

The chief initial effect of maximal freedom is at best disorientation and at worse anxiety and paralysis. *'I'd been given such freedom; I didn't know what to do with it'* (Emily, T12, 816–817). This disorientation persists even across project qualifications. Luna, who achieved full marks in the FPQ, said of her HPQ, *'I didn't know what I was doing...it was all a mess...I was very stressed about it and it was a bit scary'* (T19, 698–701). Learners are responsible for determining the nature and trajectory of their own work; there is no pre-laid path. *'You're finding in your own way'* (Erin, T21, 196–197). This is challenging because of there are so many different options or pathways. *'There's A LOT of paths you can go down'* (Lucy, T09, 712) Choosing the right path requires careful deliberation. For *'it was hard not to go down the wrong path and get lost'* (Felicia, T08, 228). Therefore, with so many options, learners can feel daunted. *'You've got all this choice. It's...option paralysis'* (Elena, T16, 287–288).

Nevertheless, learner freedom is a circumscribed freedom with two kinds of constraint: external constraints and self-imposed constraints. There are four main types of external constraint.

(i) Ethical constraints are both desirable and usually unobtrusive. *'Not interviewing some dangerous people...or doing projects that could potentially harm you...I felt that they were all reasonable and they wouldn't really affect many people anyway'* (Mia, T25, 642–645).

(ii) Academic constraints include the need to observe scholarly conventions and to be objective and impartial. *'It is a research project [and] you need to have a conclusion at the end of it'* (Emily, T12, 819–820). These constraints are acceptable, given their project qualification context.

(iii) Examples of practical constraints include limited library open hours and limited access to sources and resources. *'The website name would be blocked. That prohib-*

ited and...confined...my access to information I needed' (Freida, T11, 909–911). Socio-economically disadvantaged learners suffer greater practical constraints. Karl, a under-privileged learner, spoke evocatively of *'...knowing that I didn't have a lot, knowing that maybe I couldn't get the resources I wanted, knowing that...other people, maybe at different schools, were in a better position'* (T26, 288–291). Nevertheless, practical constraints, where significant, are rarely insurmountable, even for the disadvantaged. Participants sometimes reported finding creative or rebellious solutions. One mentioned how they *'encountered one minor obstacle:...paywalls'*, that is, access to *'information closed off [to] anyone who is not a university student...But I have found a way to [partly] circumvent that issue'*.

(iv) Social constraints are potentially the most deleterious. One major threat is an overweening supervisor who compromises learner autonomy, For example, one participant said *'I'd chosen a few [topics] and then [my supervisor] narrowed it down to ones [I'd] be best at...well...they told me what they'd be best at'*. Similarly, overbearing parents can be another unwanted constraint. Some learners protect their autonomy if they feel it is at threat. For instance, Fatima kept some of her project work secret from her mother *'because if I were to tell her she would have made me change things'* (T28, 583–584).

In addition to external constraints, there are self-imposed constraints or, more precisely, self-legislated moral obligations. Such obligations to others exist. Regardless of age, learners tend to be partially motivated by the desire to make their parents and other loved ones proud of them. Leah, who had withdrawn herself from the EPQ a few weeks before, said that *'because I'd already made the commitment to [the coordinator], and then Mx. Wiseman [supervisor], I felt a bit of pressure there'* (T18, 238–239). Such obligations to self also exist. Mary's comments are a stirring testament to this: *'My whole life I've been in, not above expected level, [but in] the normal level. I wanted to push myself to see how far I could go and see if I could exceed the levels that I was expected'* (T02, 161–163). Learners are thus impelled to take responsibility for themselves. Eloise, who was pursuing a project on a mental health issue affecting some of her peers, revealed that *'I was careful with the way that I did my research...I was very cautious'* (T22, 276–277, 282). She was also *'cautious when talking to people about it'* (294) so as not to cause offence or *'upset'* (296). Both kinds of obligation nourish learner self-investment (section **??**).

L   Theoretical glossary

agency (agentive freedom) capacity to do otherwise (Bhaskar, 1993/2008a)

autonomy freedom to act on self-determined reasons

constraints limits to freedom (Bhaskar, 1993/2008a)

constructive conversation discussion in which guidance, feedback, or reassurance are given

co-presence others being there for and with the learner (cf. Bhaskar, 2002)

co-presence *in intellectu* co-presence in thought only

cross-transferability bidirectional transferability

dialogical thinking thinking that includes two or more perspectives

dialogue open, exploratory discussion prompting reflection or reflexivity

distanciation taking a critical distance from an object of study

education facilitation of emergent rationality towards liberation (Shipway, 2010, p. 5)

educative discussion dialogue or constructive conversation

emancipation liberation from oppressive ($power_2$) constraints (Bhaskar, 1993/2008a)

eudaimonic freedom universal flourishing (Bhaskar, 1993/2008a)

flourishing realised freedom of an individual (Bhaskar, 1993/2008a)

ground-state true unrealised being (cf. Bhaskar, 2002)

heteronomous schooling a school system dominated by high-stakes examination

independence the enactment of autonomy

liberation freedom from unhelpful constraints (Bhaskar, 1993/2008a)

mining searching sources for relevant matter

perseverance persistence despite difficulty

practical assistance non-discursive support e.g. supplying resources

project qualification a foundation, higher, or extended project qualification

pre-research research done before the research focus is established

reflexivity critical awareness of self, matter, and method (Jackson, 2011)

relationship nexus a network of interpersonal relationships

resonant support

self-discovery learning about one's real self (cf. Stephenson & Isaacs, 2019)

self-investment being aspirational for and committed to self

self-scaffolding independently taking steps to meet learning challenges (cf. Wood et al., 1976)

transferability application of knowledge from one context to a different context

virtual co-presence co-presence through electronic communication technology

well-being freedom from ills (Bhaskar, 1993/2008a)

M   My professional experience in the project qualifications

In 2012, a quite brilliant sixth form student, Judith, asked me to be her supervisor for something called the 'EPQ'. I did not know what this was, so I asked her to explain. The EPQ, she said, was an independent learning qualification. She could choose any topic to investigate and, after researching that topic, she would have to write an extended essay about it. Additionally, she would have to give an oral presentation to, and field questions from, an audience. My role, I was told, was mainly to support her work and, from time to time, to complete some paperwork. This did not sound particularly onerous. She was contemplating undertaking a project on Kropotkin's anarcho-communism, which piqued an interest and was something that I felt I could help her with. So I agreed to be her supervisor. I promptly attended a supervisors' meeting led by the school's EPQ coordinator, Mx. Wiśniewski, who oversaw provision. I also glanced through the materials on the website of the awarding body, AQA. Thus began my encounter with the project qualifications.

Over the next nine months, I spoke frequently with Judith about her project. Some discussions were the briefest of informal conversations; others were in-depth dialogues lasting an hour or more. However busy I was, I always found time for supervisory meetings, mainly because I quite enjoyed them. I sought to pose thought-provoking questions and make constructive suggestions. Occasionally, I would read through her work and offer my thoughts. If I recall correctly, I also watched a few presentation rehearsals and provided some feedback on these. When required, I filled in sections of the 'log book', a rather unwieldy document designed for recording the progress of the project. (I must confess that I never fully fathomed that log book!) When the final project was submitted, I summatively marked it and gave it to the coordinator for internal (and potentially external) moderation.

Judith worked hard on her highly ambitious project. She sought to examine the influence of Kropotkin's anarcho-communism on Bolshevik state socialism. She read a copious range of dense historical texts, annotating each with interpretative and critical comments. Her essay was redrafted several times and was well referenced and academically polished. She presented her project to what seemed like the entire sixth form and answered the questions asked by students and teachers with an enviable poise. The final project that she submitted was thoroughly documented, and it was therefore altogether unsurprising that the project was awarded full marks.

What did surprise me was how useful doing the project turned out to be for Judith. The understanding that she had cultivated helped her to prepare for A-level examinations taken in the same year. She wrote about her project in her personal UCAS statement, and she reported speaking about her project extensively in her university interview. Three years later, she said that the skills that she had acquired and developed were invaluable when writing her dissertation on ideologues in pre-Revolution Russia. Thus, at least to an extent, her EPQ experience played a role in helping her to attain a first class degree in History at Oxford.

In the next school year, I agreed to supervise five sixth form students and one year 10 pupil through the EPQ. Although learners focused on different topics, the process they went through was similar to the process that Judith underwent, except they presented their work on a designated evening to an audience of invited students, staff, and parents. Overall, learners performed exceptionally well, with five A* grades awarded. Two things struck me. One was that the student from a greatly disadvantaged background performed as well as her more privileged peers. The other was that the 14 year old student was the joint highest achieving student in the school, achieving 47 marks out of 50. Neither socio-economic disadvantage nor age, it seemed, were necessarily barriers to academic attainment in the EPQ.

But supervising six students, although enjoyable, proved to be very time consuming. As a result, I was not overly disappointed when the student I agreed to supervise in the next school year decided not to continue, after perhaps just one meeting. I resumed supervision in 2015/2016, supporting three year 11 pupils. All three achieved as well as the highest achieving year 13 students, which impressed on me further the belief that age was not a limiting factor. From then until now (2020), I have continued to supervise a small number of students through the EPQ each year.

It was in autumn 2016, midway through the 2016/2017 cycle, that the opportunity to be the EPQ coordinator arose. I had come to the qualification and was quite disquieted about the school's low completion and attainment rates in summer 2016: only eight students completed, and of these only two attained grade A*–A. I therefore volunteered for the role.