

# Uptake and results in the Extended Project Qualification 2008-2015

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## Introduction

This report presents a descriptive analysis of uptake and results in the Extended Project Qualification (EPQ), between 2007/08 and 2014/15. The EPQ is a level 3 stand-alone qualification taken by sixth form students. It involves undertaking a substantial project in an area of personal interest, where the outcome can range from writing a dissertation or report to putting on a performance or organising an event. In recent years the EPQ has seen substantial increases in entries, perhaps partly because it is seen as good preparation for university study and is now included in offers by some higher education institutions. Therefore it is of interest to consider which groups of students are taking EPQ and how they perform. Prior to 2007/08 the numbers of students taking EPQ were very small.

The data for the analysis was taken from the National Pupil Database (NPD). This is a database held by the Department for Education, consisting of results for all students in all qualifications and subjects in schools and colleges in England, as well as pupil and school background characteristics such as age, gender, ethnicity and level of deprivation. Students taking EPQ do so as part of their sixth form studies so the Key Stage 5 (KS5) extract of the NPD was used.

## Results

Two separate analyses were undertaken: first a longitudinal analysis, comparing uptake and results for all years between 2007/08 and 2014/15; and secondly, a more detailed analysis of the most recent cohort of students (2014/15).

### *Longitudinal analysis*

Table 1 presents the number of entries for EPQ in each year from 2007/08 to 2014/15. Entries are also presented as a percentage of all students taking an A level in that year. It should be noted that the figure for 2014/15 does not include all students submitting their project in that year, because of the way that the NPD is structured. The KS5 database only includes students who are aged 16 to 18 and have attempted at least one level 3 qualification equivalent in size to an A level. Therefore, any year 12 students taking the EPQ (which is only equivalent in size to an AS level) in 2014/15 and not taking an A level or equivalent at the same time will not appear in the NPD for that year. However, in previous years the number of students for whom this was the case was not large (e.g. around 1,600 students took the EPQ in 2013/14 but did not appear in the NPD until 2014/15).

**Table 1: Entries for EPQ 2007/08-2014/15**

Academic Year	Entries for EPQ	% of A level students
2007/08	1,946	0.7
2008/09	6,013	2.1
2009/10	18,704	6.3
2010/11	27,620	9.3
2011/12	33,197	11.2
2012/13	35,543	12.0
2013/14	38,131	13.3
2014/15	38,049	13.0

In 2007/08 the EPQ was in a pilot phase, which explains why the numbers of students was so low in that year. Table 1 demonstrates the large increase in entries (both in terms of overall numbers and percentages of A level students), particularly between 2008/09 and 2011/12. In recent years the entries have been levelling off somewhat. Table 2 breaks these entries down by the year group and session of entry. This shows when during sixth form study students submitted their project.

**Table 2: Entries for EPQ 2007/08-2014/15, by year group and entry session**

Academic Year	Entries for EPQ	Winter Y12	Summer Y12	Winter Y13	Summer Y13
2007/08	1,946	0.1	19.2	8.8	68.7
2008/09	6,013	0.0	16.3	6.9	74.8
2009/10	18,704	0.1	13.2	12.2	72.4
2010/11	27,620	0.1	11.8	11.4	73.4
2011/12	33,197	0.2	10.4	12.7	74.0
2012/13	35,543	0.2	10.3	13.1	73.8
2013/14	38,131	0.2	11.6	10.9	74.3
2014/15	38,049	0.2	9.9	10.3	73.5

NB. The sum of the sessions in each year does not total 100% because a very small percentage of students took the qualification in either year 11 or year 14.

Thus, a large majority of students submitted their project at the end of year 13, with around 10-13% submitting in summer of year 12 or in winter of year 13. However, this does not necessarily mean that most students undertook their project in year 13. Many of the students submitting in summer of year 13 would have completed their project earlier (OCR, 2015).

It should be noted that this data includes re-sits. However, the total number of re-sits in each year was less than 2% of the total number of entries.

Table 3 presents the cumulative grade distributions for the EPQ for each year. EPQ is graded from A\* to U, but also included in this table are entries graded 'X'. This indicates students who have 'withdrawn' before submitting their project. These are included because the percentages of 'X' grades were particularly high for the EPQ compared with other qualifications such as AS levels (0.3%) and A levels (0.1%). Note that there were no A\* grades for the EPQ in the 2007/08 academic year, because the grade was first available in 2008/09.

**Table 3: EPQ cumulative grade distributions 2007/08-2014/15**

Academic Year	Entries for EPQ	Cumulative %							% X
		A*	A	B	C	D	E	U	
2007/08	1,946	0	18.4	33.3	46.9	58.2	67.7	84.4	15.6
2008/09	6,013	10.8	28.7	48.2	63.2	73.8	81.7	89.7	10.3
2009/10	18,704	11.9	28.1	45.3	61.8	74.5	84.4	92.1	7.9
2010/11	27,620	12.8	29.5	47.7	64.5	77.5	87.1	93.7	6.3
2011/12	33,197	13.9	32.3	50.9	67.9	80.0	87.9	94.6	5.4
2012/13	35,543	14.4	34.1	52.9	69.9	81.6	89.2	95.4	4.6
2013/14	38,131	16.6	38.8	59.8	76.5	87.1	93.0	96.0	4.0
2014/15	38,049	17.0	39.3	60.7	78.3	88.3	93.3	96.3	3.7

Performance in 2007/08 was particularly poor compared with other years, perhaps because schools were still getting used to teaching the qualification. Since 2008/09 there has been a steady improvement in the performance of EPQ students. In 2008/09, 10.8% achieved an A\* and 63.2% at least a grade C, compared with 17.0% and 78.3% respectively in 2014/15.

### **Single year analysis (2014/15)**

The remainder of this report focuses on the most recent available data, from the 2014/15 NPD. This analysis uses a slightly different cohort of students, being those in year 13 in 2014/15 and having taken EPQ at some point (i.e. in 2014/15 or in previous years). This set of students was selected because we are interested in analysing the other qualifications and subjects that EPQ is

combined with and therefore want to include only students who have finished sixth form. In all there were 33,290 students in this data set.

The analysis first compares the background characteristics of EPQ students (school type, prior attainment, gender and deprivation) to the A level cohort as a whole.

### *School type*

There are several different types of school where students take level 3 qualifications. For this report these were classified into seven groups. Table 4 presents the number and percentage of EPQ students in 2014/15 attending each school type (schools denoted as 'other' or 'unidentified' are not included). The table also includes, as a comparison, the percentage of all A level students in each school type.

**Table 4: EPQ students by school type**

School type	EPQ		A level
	Number of students	Percentage	Percentage
Academy	10,419	31.7	28.9
Comprehensive	6,575	20.0	23.9
FE/Tertiary College	1,578	4.8	7.6
Grammar	2,007	6.1	3.5
Independent	3,741	11.4	13.4
Secondary Modern	266	0.8	0.9
Sixth Form College	8,324	25.3	21.8

This shows that the spread of EPQ students across school types was fairly close to that of A level students. However, in comparison to A level students, EPQ students were more likely to attend academies, grammar schools and sixth form colleges and less likely to attend comprehensive schools, FE/Tertiary colleges and independent schools.

### *Prior attainment*

Two different measures of the prior attainment of students were used: KS4 total points score and KS4 mean points score. These measures were taken directly from the NPD and were calculated by assigning a number of points to grades achieved in different qualifications. For example, the points allocated to the grades for GCSEs range (in intervals of 6 points) from 58 for an A\*, down to 16 for a G. Thus, a student taking 8 GCSEs and averaging A grades would get a total points score of 416 and a mean points score of 52.

Table 5 compares the prior attainment of EPQ students with all A level students. There were 563 students with no KS4 points score measure. Table 5 shows that EPQ students had very slightly higher prior attainment on average (both measures) than A level students as a whole.

**Table 5: Prior attainment of EPQ and A level students.**

	Student group	N	Mean	SD	Minimum	Maximum
KS4 mean points score	EPQ students	32,727	48.9	5.4	16.2	61.9
	All A level students	263,739	47.1	5.2	7.0	67.5
KS4 total points score	EPQ students	32,727	411.3	43.3	8.8	534.2
	All A level students	263,739	396.4	43.5	6.3	534.2

### Deprivation level

The level of deprivation that a student experiences was measured by the Income Deprivation Affecting Children Index (IDACI). This is a measure of the percentage of children in a very small geographical area (Lower Layer Super Output Area or LSOA) who live in families that are income deprived. It varies between 0 and 1, with 0 representing minimum deprivation and 1 maximum deprivation. It should be noted that there was a significant amount of missing data for this measure (around 20% of EPQ students had no record).

Table 6 compares the IDACI for EPQ students with all A level students.

**Table 6: Deprivation level of EPQ and A level students**

Student group	N	Mean	SD	Minimum	Maximum
EPQ students	28,139	0.15	0.14	0.0	0.99
All A level students	223,136	0.18	0.16	0.0	0.99

Thus, EPQ students experienced slightly lower levels of deprivation on average than the whole A level cohort.

### Other qualifications taken by EPQ students

Table 7 presents the top 10 most common qualifications that EPQ students also took. This is in terms of both the number and percentage of qualifications and the number and percentage of students taking these qualifications.

**Table 7: Most common qualifications taken alongside EPQ**

Qualification	Qualifications (n)	Qualifications (%)	Students (n)	Students (%)
A level	94,353	64.1	31,748	95.4
AS level	38,908	26.4	28,127	84.5
BTEC Diploma	3,702	2.5	3,059	9.2
FSMQ level 3 <sup>1</sup>	3,289	2.2	2,951	8.9
Applied A level	1,522	1.0	1,407	4.2
BTEC Certificate	1,398	0.9	1,198	3.6
VRQ <sup>2</sup>	888	0.6	870	2.6
Key Skill	652	0.4	397	1.2
Applied AS level	529	0.4	511	1.5
Cambridge Technical	312	0.2	301	0.9

Thus, most EPQ students also took A levels (95.4%) and AS levels (84.5%). Around 9% also took a BTEC Diploma (equivalent to 3 A levels) or a Free Standing Maths Qualification. The most common combinations of qualifications for EPQ students are shown in Table 8.

<sup>1</sup> FSMQs are Free Standing Maths Qualifications, which are designed for students wanting to continue studying maths beyond GCSE, but for who AS level maths may not be appropriate.

<sup>2</sup> VRQs are Vocationally Related Qualifications and give students skills and knowledge for working in a particular industry. Popular subjects include a Certificate in Financial Studies and Certificate for Young Enterprise.

**Table 8: Most common combination of qualifications taken alongside EPQ**

Combination	Students (n)	Students (%)
A level – AS level	21,062	63.3
A level only	2,715	8.2
A level – AS level – FSMQ	2,313	7.0
A level – AS level – Applied A level	726	2.2
A level – AS level – BTEC Diploma	701	2.1
A level – AS level – VRQ	426	1.3
BTEC Diploma only	389	1.2
A level – FSMQ	339	1.0
A level – AS level – BTEC Certificate – BTEC Diploma	336	1.0
AS level – BTEC Diploma	333	1.0

A large majority of students combined EPQ with A levels and AS levels (63.3%) or with A levels only (8.2%). A further 7% combined it with A levels, AS levels and FSMQ.

#### *Number of A levels combined with EPQ*

The number of A levels taken by students alongside the EPQ is presented in Table 9. Again, this is compared with the results (percentages of students) in the A level cohort as a whole.

**Table 9: Number of A levels taken by EPQ students**

Number of A levels	EPQ Students (n)	EPQ Students (%)	A level students (%)
1	1,580	5.0	11.7
2	3,534	11.1	15.5
3	21,465	67.6	60.6
4	4,597	14.5	11.2
5+	572	1.8	1.0

This shows that EPQ students were more likely to take a larger number of A levels, compared with the A level cohort as a whole. Table 10 presents the most common number of A levels and AS levels taken in combination with the EPQ (students taking A level, AS level and EPQ only).

**Table 10: Number of A levels and AS levels taken by EPQ students**

Number of A levels	Number of AS levels	EPQ Students (n)	EPQ Students (%)
3	1	12,389	52.0
3	2	3,753	15.8
4	1	2,213	9.3
3	0	1,610	6.8
4	0	853	3.6

So, by far the most common combination taken with an EPQ was 3 A levels and 1 AS level, followed by 3 A levels and 2 AS levels.

### *Uptake of individual A level subjects*

In Table 11 the uptake of the most popular A level subjects amongst EPQ students is presented, along with the uptake in the A level cohort as a whole.

**Table 11: Most popular subjects taken by EPQ students**

A level subject	Students (n)	Students (%)	A level students (%)
Maths	10,312	31.0	27.9
Biology	8,409	25.3	19.4
History	7,743	23.3	18.1
Chemistry	7,190	21.6	16.4
English Literature	6,855	20.6	16.8
Psychology	6,295	18.9	19.4
Geography	4,488	13.5	12.1
Physics	4,051	12.2	11.4
Economics	2,927	8.8	9.3
Sociology	2,809	8.4	10.7

Thus EPQ students were more likely than the A level cohort as a whole to take maths, biology, history, chemistry or English literature and less likely to take psychology or sociology.

### *Attainment by group*

Table 12 presents the EPQ cumulative grade distribution, by gender and by school type.

**Table 12: Cumulative grade distribution for EPQ, by gender and school type**

	A*	A	B	C	D	E	U	X
Female	19.0	43.4	65.5	82.3	90.7	94.7	96.9	3.1
Male	15.7	36.6	57.4	75.4	86.5	92.4	96.3	3.7
Academy	17.3	40.8	62.2	79.8	89.2	94.0	97.1	2.9
Comprehensive	11.8	31.3	53.3	73.5	86.7	93.2	96.7	3.3
FE/Tertiary College	12.3	31.8	54.6	73.4	83.5	89.4	95.0	5.0
Grammar	20.5	46.1	70.2	87.8	94.9	97.3	98.3	1.7
Independent	32.6	60.0	78.7	90.7	94.6	95.7	96.6	3.4
Secondary Modern	6.1	23.9	38.6	58.0	73.9	81.8	87.9	12.1
Sixth Form College	17.8	42.2	64.3	80.5	89.5	94.1	96.3	3.7

Female students outperformed male students substantially, with 19% achieving an A\* and 82.3% at least a grade C, compared with 15.7% and 75.4% respectively.

The attainment was highest in independent schools by some distance, followed by grammar schools. The lowest attainment was amongst secondary modern students. However, it is worth noting that a relatively high proportion of secondary modern students were given a grade 'X', meaning that they withdrew before submitting their project.

### *Comparison of EPQ performance with A level performance*

There were 31,748 students taking the EPQ who also achieved at least one grade in an A level. The grades achieved by students in their EPQ and A levels were converted to numeric variables with values ranging from 6 (for an A\* grade) to 0 (U grade). A mean A level score was then calculated for each student.

Figure 1 presents the distribution of mean A level by EPQ grade (excluding those with a grade 'X' in EPQ).

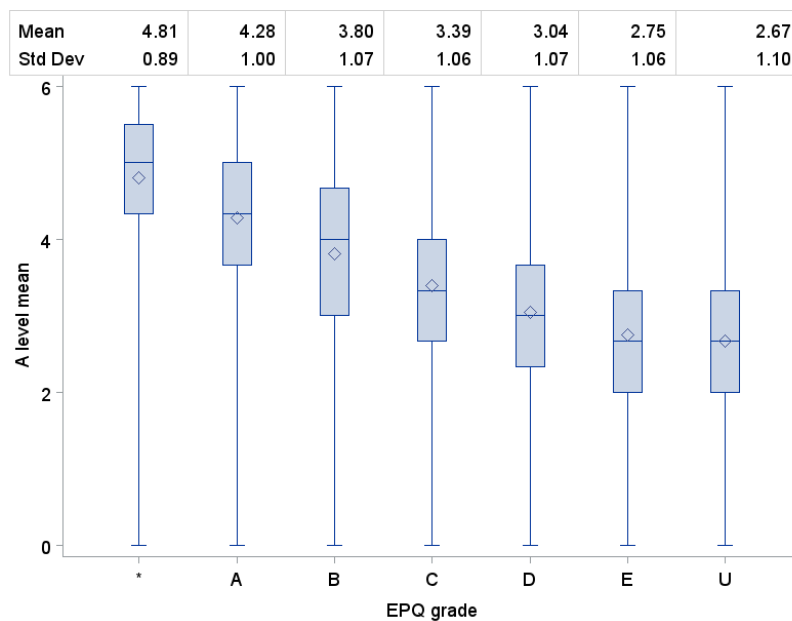


Figure 1: Distribution of mean A level by EPQ grade

This demonstrates a good positive relationship between mean A level grade and EPQ grade. The correlation between the two measures was 0.522.

*Correlation by A level subject*

It is interesting to consider whether the relationship between A level performance and EPQ performance is better in some subjects than in others. Table 13 presents the correlation coefficients between EPQ grade and A level grade for each of the top 10 most common subjects taken by EPQ students (see Table 11).

**Table 13: Correlations between EPQ grade and A level grades**

A level subject	Students (n)	Correlation
Maths	10,312	0.368
Biology	8,409	0.430
History	7,742	0.468
Chemistry	7,188	0.410
English Literature	6,855	0.473
Psychology	6,294	0.408
Geography	4,487	0.436
Physics	4,051	0.440
Economics	2,926	0.455
Sociology	2,808	0.375

There were some interesting differences, with the highest correlations being between EPQ grade and English literature grade (0.473) or history grade (0.468) and the lowest correlations between EPQ grade and maths (0.368) or sociology grade (0.375).



## ***Reference***

OCR (2015). Extended Project Qualification: The learner journey. Oxford, Cambridge and RSA Examinations: Cambridge.