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Research Findings
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CHILDREN, EDUCATION AND SKILLS

STEM and language choices in school:

Young People in Scotland Survey 2017

This report presents data from Ipsos MORI's Young People in Scotland Survey 2017 on the choices young people make regarding STEM and language subjects in school. Girls were more likely than boys to report choosing or intending to study a language other than English. No gender differences emerged with regard to uptake of STEM subjects however the pattern of responding suggested that girls were less confident in their STEM skill abilities compared to boys. Most young people were not sure about whether they wanted to go into a STEM career.

Introduction

The Young People in Scotland Survey collects data from a representative sample of young people aged 11-18 years old and is self-completed by young people in school. In 2017, 1781 young people took part. This report summarises their responses to questions relating to choosing language and STEM subjects in school. Data was weighted by gender, year groups, urban-rural classification and SIMD classification[1]. Differences highlighted in the report between groups of young people were statistically significant, at the 95% level.

Subject Choices: Languages

When asked about their intentions to study a language other than English, more than a third (35%) of young people said they had chosen or thought they would choose to study a language whilst nearly half (48%) said they had **not** chosen or did **not** think they would study a language.

Which of the following best applies to you?

Prefer not to say | Don't know | Chosen/Intending to study a language | **Not** Chosen/Intending to study a language

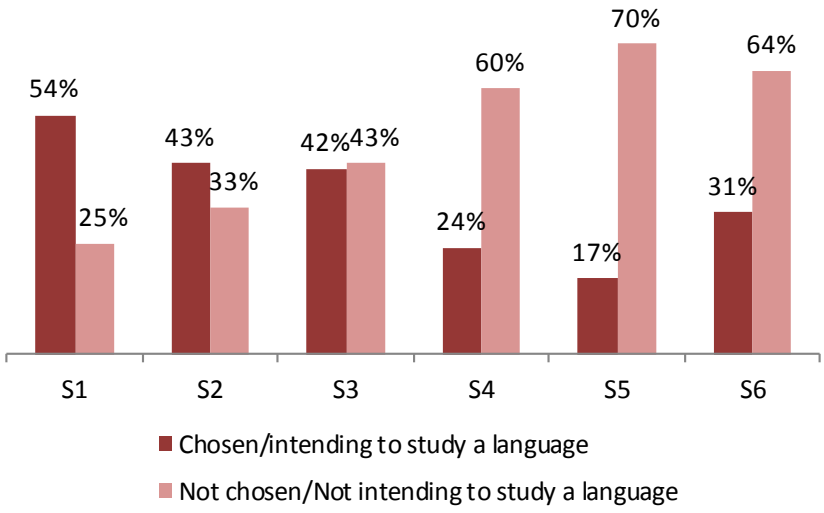
Girls were significantly more likely than boys (41% vs 31%) and young people from rural areas were significantly more likely than those from urban areas (40% vs 34%) to report that they had chosen or intended to study a language subject

The percentage of young people reporting that they had chosen or were intending to study a language decreased between S1 and S5. In S1, 54% of young people reported that they had chosen or were intending to study a language compared to 17% in S5. However, S6 pupils were

[1] The Scottish Index of Multiple Deprivation (SIMD) identifies small area concentrations of multiple deprivation across all of Scotland in a consistent way. It ranks small areas (data zones) from most deprived to least deprived. SIMD quintiles are bands containing 20% of data zones, from most deprived (SIMD1) to least deprived (SIMD5).

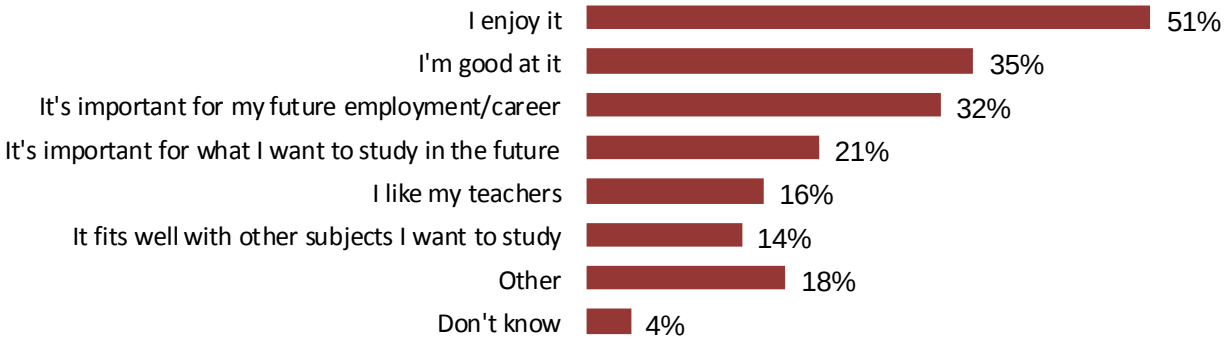
more likely than S5 pupils (31% vs 17%) to report they had chosen or were intending to study a language.

Which of the following best applies to you?



The most common reason for choosing to study a language, reported by 51% of young people, was because they enjoyed it. Other common reasons were because they were good at it (35%), or thought it was important for their future employment or career (32%). Young people from rural areas were more likely than those from urban areas (22% vs 15%) to report that one of the reasons was because they liked their teacher.

Reasons for choosing/intending to study a language

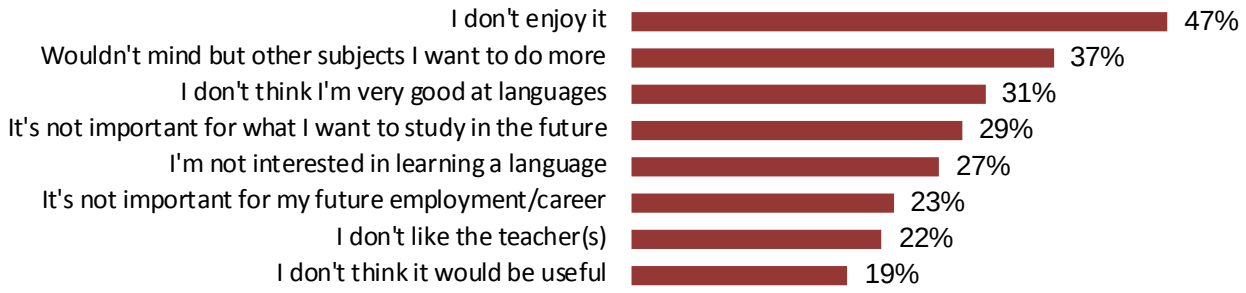


Base: Those who reported they had chosen or intended to study a language

Conversely, the most common reason for **not** choosing or **not** intending to study a language, reported by 47% of young people, was because they did not enjoy it. There were some differences between groups of young people in reported reasons for not choosing or not intending to study a language other than English:

- Girls were significantly more likely than boys to report that they didn't think they were very good at it (36% girls vs 27% boys) and that they wouldn't mind studying a second language but there were other subjects they wanted to do more (41% girls vs 33% boys)
- Young people from rural areas were significantly more likely than those from urban areas (26% vs 18%) to report that they didn't think it would be useful
- The older young people were, the more likely they were to report that they wouldn't mind studying a language but there were other subjects they wanted to do more. Young people in S6 were less likely than those in previous years to report that they didn't think it would be useful, didn't like the teachers, or it wasn't important for what they wanted to study.

Reasons for NOT choosing/intending to study a language

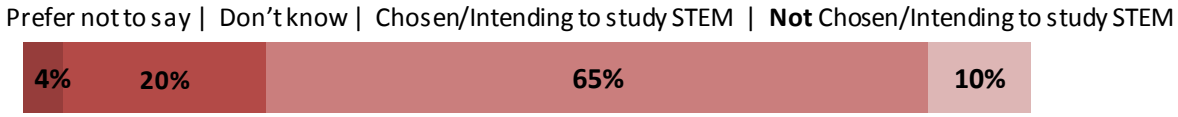


Base: Those who reported they had either **not** chosen or did **not** intend to study a language

Subject Choices: STEM

When asked about their intentions to study a STEM subject, almost two thirds (65%) said they had chosen or thought they would choose to study a STEM subject whilst only 10% said they had **not** chosen or did **not** think they would study a STEM subject.

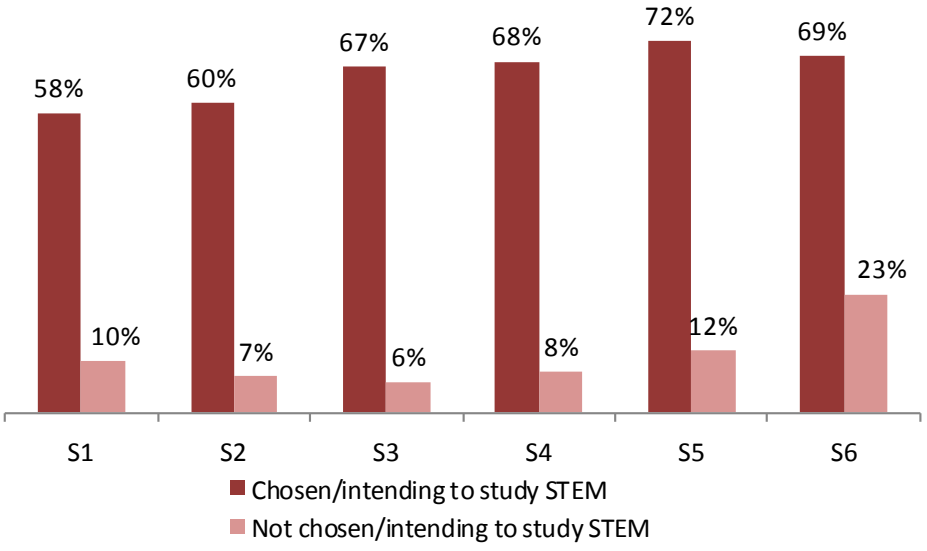
Which of the following best applies to you?



There were no differences in the number of girls and boys (67% vs 63%) reporting that they had chosen or were intending to study STEM. However, girls were more likely than boys (13% vs 8%) to report that they had **not** chosen or were **not** intending to choose a STEM subject.

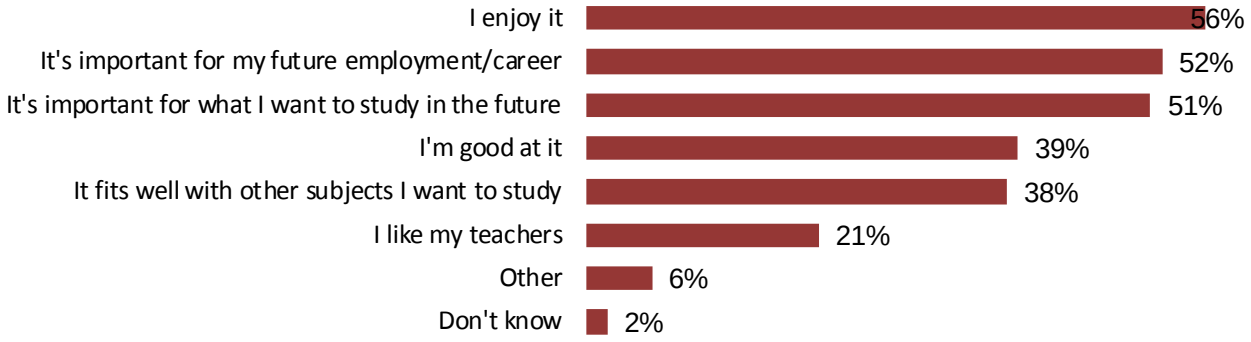
Young people from the most deprived areas (SIMD 1) were less likely than those in the least deprived areas (SIMD 5) to report that they had chosen to study or were intending to study a STEM subject (57% versus 71%).

The pattern with regard to STEM subject choices remained fairly consistent across the school years. There was evidence of a small increase in the percentage of young people choosing or intending to choose STEM subjects in the later stages of schooling.



Over half of young people choosing to take a STEM subject said they did so because they enjoyed it (56%), they felt it was important for their future career or employment (52%) or they felt it was important for what they wanted to study in the future (51%). Boys were significantly more likely than girls to select the following reasons for choosing/intending to choose a STEM subject: 'I enjoy it' (61% vs 52%); 'I'm good at it' (45% vs 33%); and, 'It fits well with other subjects I want to study' (41% vs 34%).

Reasons for choosing/intending to study STEM

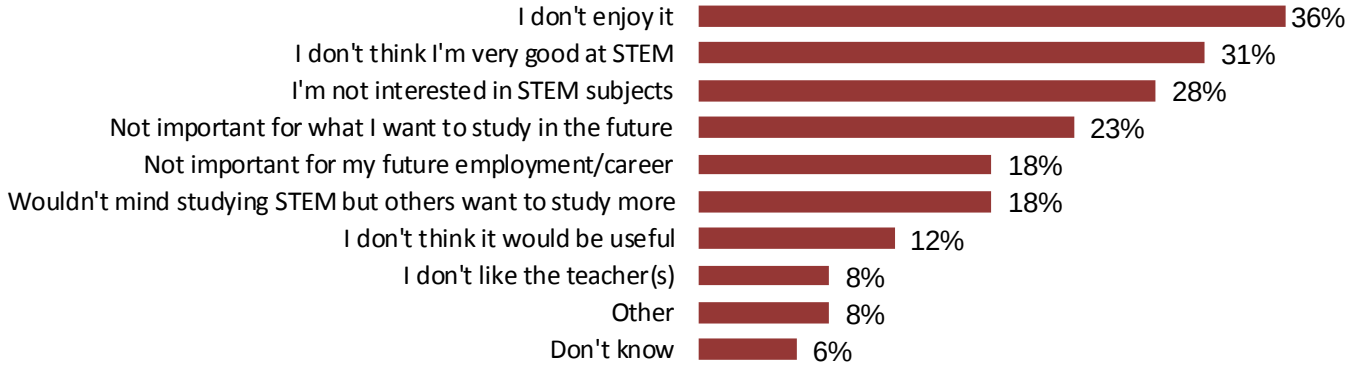


Base: Those who reported they had chosen or intended to study STEM

The most common reasons for **not** choosing to study a STEM subject were: not enjoying it (36%); not thinking they were very good at it (31%); not being interested in STEM (28%); and it not being important for what they want to study in the future (23%).

Girls and boys differed slightly in their reasons for not choosing or not intending to choose to study STEM. Most notably, girls were significantly more likely than boys to (40% vs 17%) to report that they didn't think they were very good at STEM subjects. Although not reaching statistical significance, more girls than boys also reported that they did not enjoy STEM (40% vs 32%) and that it wasn't important for what they wanted to study in the future (26% vs 17%).

Reasons for not choosing/intending to study STEM



Base: Those who reported they had not chosen or did not intend to study STEM

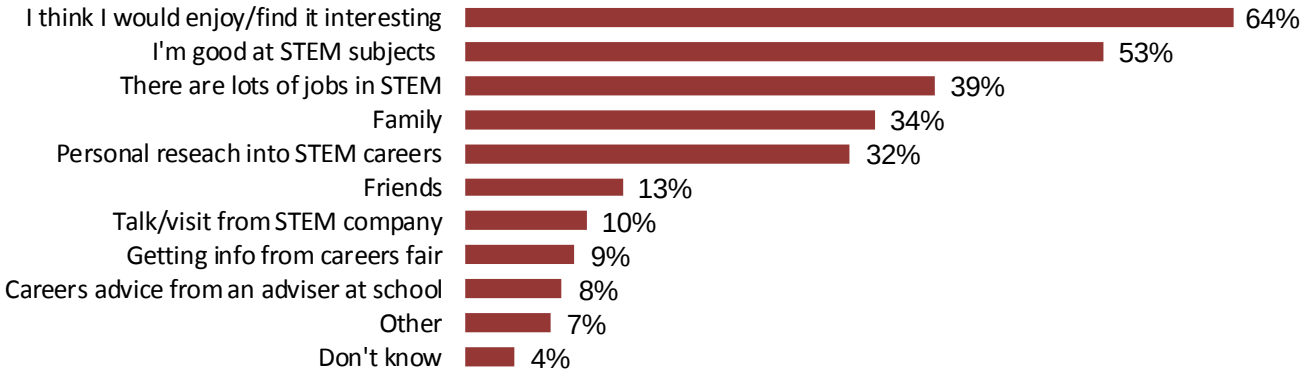
Future Career in STEM industry

Most young people (40%) did not know whether they wanted to go into a career in the STEM industry. As would be expected, young people became more certain about whether to go into a STEM career as they progressed through school.

Similar numbers of young people reported they did (29%) or did not (26%) want to go into a career in a STEM industry. Boys were more likely than girls (34% vs 24%) to report that they wanted to pursue a STEM industry career.

For those who said they did want to go into a career in the STEM industry, the most common reasons were because they would enjoy it or find it interesting (64%) and because they were good at STEM subjects (53%). Over a third of respondents reported that they had felt encouraged to go into a career in the STEM industry because there were lots of jobs in STEM industries (39%), because of their own research (32%) or family members (34%).

Reasons for feeling encouraged to pursue a STEM career



Base: Those who reported wanting to pursue STEM career

S6 pupils were significantly more likely than S1 pupils (77% vs 55%) and young people from 20% least deprived areas were significantly more likely than those from 20% most deprived areas (71% vs 53%) to report that one reason for wanting to go into the STEM industry was because they thought they would find it interesting.
Young people from least deprived areas were also more likely than those from most deprived areas (42% vs 26%) to report that their family had encouraged them to pursue this career.

How to access background or source data

The data collected for this social research publication:

☒ may be made available on request, subject to consideration of legal and ethical factors. Please contact < **socialresearch@scotland.gsi.gov.uk** > for further information.