



‘Choosing Science’

Sponsored by Fife and Tayside Wider Access
Forum

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1. Background to the evaluation

The numbers of young people following science, technology, engineering and maths (STEM) based careers are dropping. Previous studies have highlighted factors that discourage individuals from taking these subjects during compulsory and non-compulsory education but there has been no analysis of factors that encourage those who do choose to follow one of these pathways. This study was designed to find out, via questionnaire, from those currently studying a STEM subject what factors lead them to choose that subject.

2 Methodology

2.1 Project Team

The project team consisted of:

Cath Brown, Dawn McKaig, Rosemary Rattray (all Tayside STEM Partnership)

Prof. Harry Staines (University of Abertay Dundee)

Dr Alistair Eberst (University of Abertay Dundee)

2.2 Design and distribution

Members of the team met on several occasions to

- decide on the nature of the questions to be asked and analysis required
- decide on the target population
- decide on the methods used to distribute and collect questionnaires

The questionnaire evolved over several months. Initial improvements were made following team discussions. Later versions of the questionnaire were tested on students at Aberdeen College and Aberdeen University who were not involved in the wider study. The questionnaire design was finalised in July 2006, and distributed during the new academic year starting in August 2006.

Questionnaires were distributed to

S3 and S5/6 pupils at: Baldragon High School, Dundee
 Brechin High School, Angus
 Kirkland High School, Fife
 St Saviour's High School, Dundee

Further Education students at: Angus College
 Dundee College

Undergraduate students at: Heriot Watt University
 St Andrew's University
 University of Abertay Dundee
 University of Dundee

In most cases, questionnaires were distributed and collected by a member of Tayside STEM Partnership in person. A small number of institutions returned questionnaires by post.

2.3 The questionnaire

The questionnaire had four sections:

Section 1 questions were based on subjects and levels of study.

The team formed 2 questions with multiple answers. These indicated which science subjects were currently being undertaken, at which level and which subject area they considered to be most enjoyable.

Section 2 questions were based on which factors affected student decisions to take the subjects marked in Section 1. These questions were based on the teams own educational experiences, and were refined through trials of several prototype versions of the questionnaires on various groups of students, mainly at Aberdeen College.

Section 3 questions collected data on age, gender, wider access status and gap years. Of these, wider access status was the most difficult to assess. Five questions were finally chosen that reflected various issues that may create a wider access state. These were designed to measure family influences, socioeconomic status (free school meals are accepted as one of the most accurate measurements of this), language barriers and disabilities.

Section 4 allowed space for further comment.

See Appendix 6.1, page 27, for sample questionnaire and instruction sheet.

2.4 Analysis

Completed questionnaires were numbered, then scanned by computer using OCR (optical character recognition). Data were downloaded to an Excel spreadsheet.

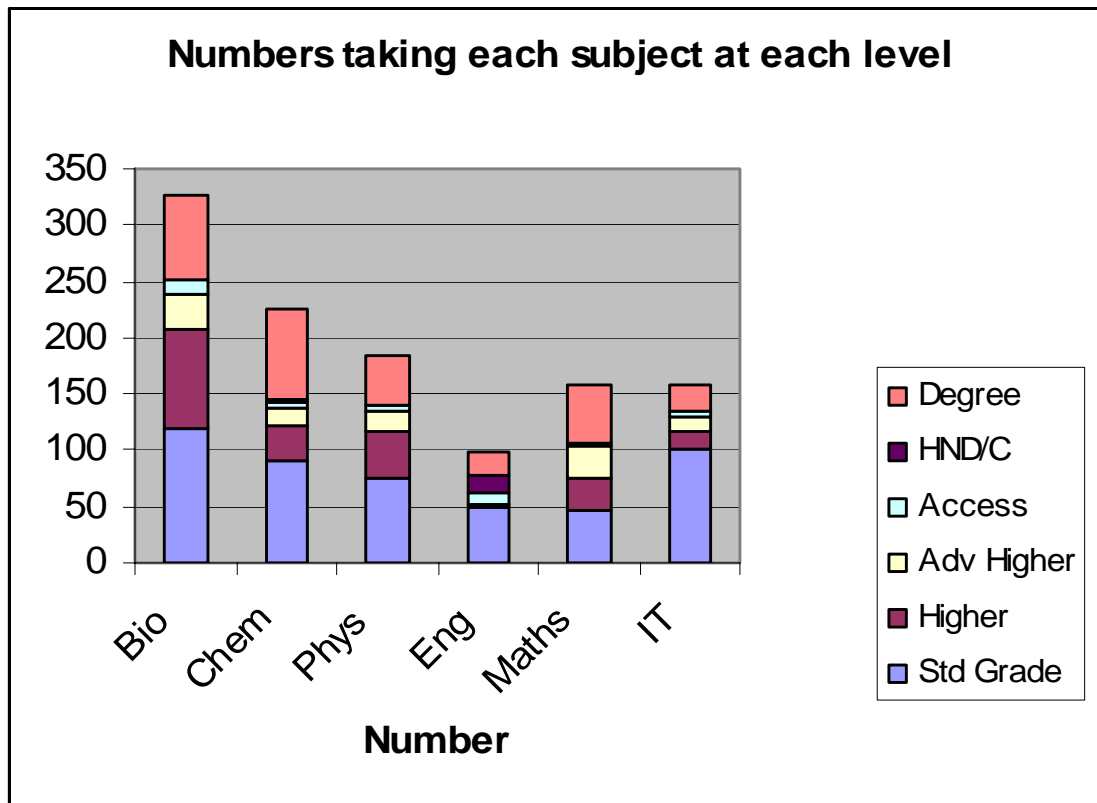
Data were corrected by hand where the computer had been unable to pick it up, for instance in cases of using pencil to fill in the questionnaire, crossing out an answer and choosing another, ticking rather than colouring the circle.

Data were then statistically analysed by Dr Eberst.

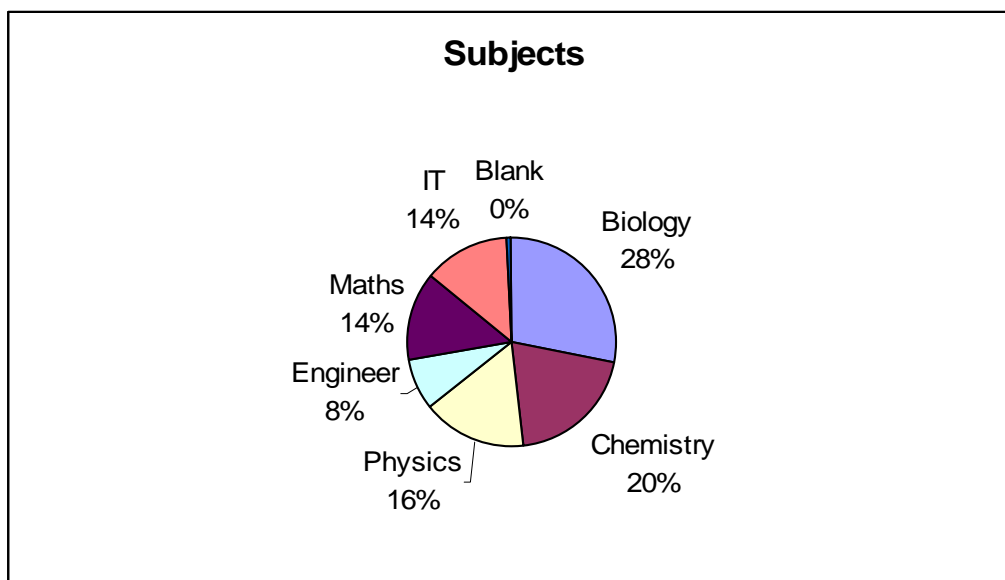
3. Results

3.1 Survey population distribution

3.1.1 Numbers of students preferring each subject at each level.

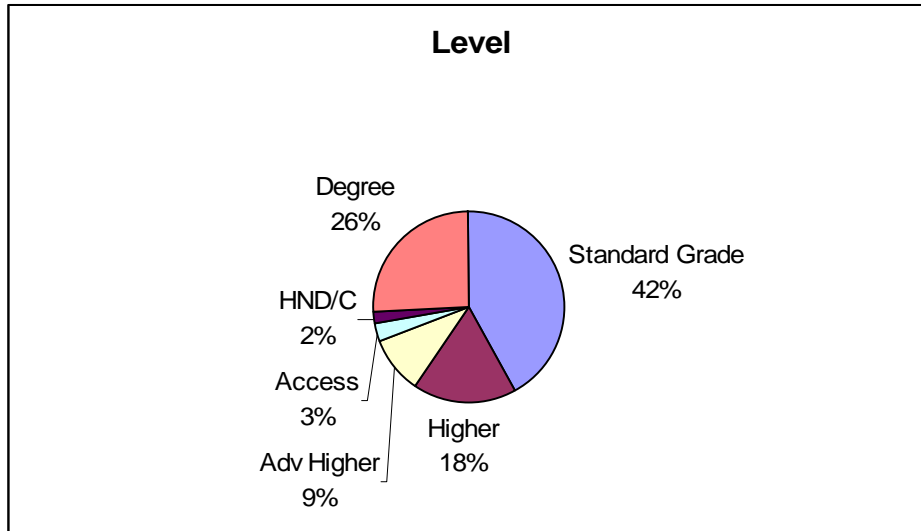


3.1.2 Percentages of total population showing a preference for each subject

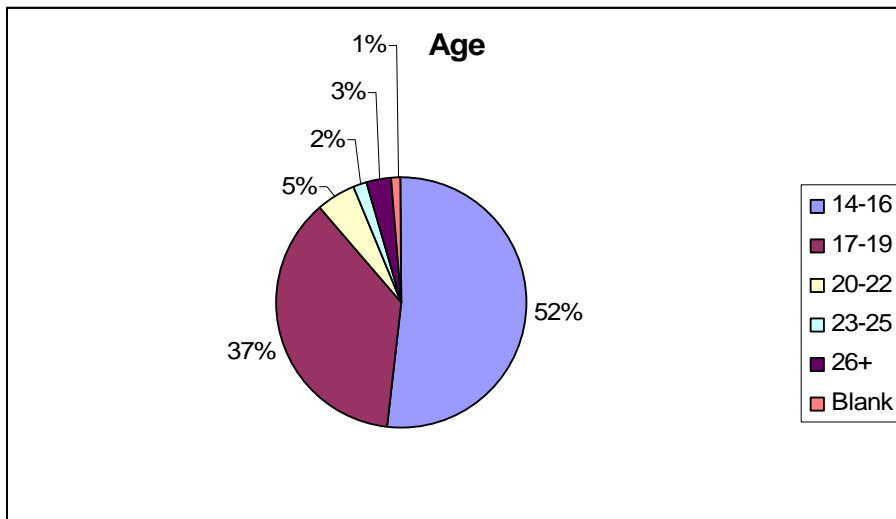


N.B. The under-representation of engineering in this section may be partly due to there being no school subject with that particular name.

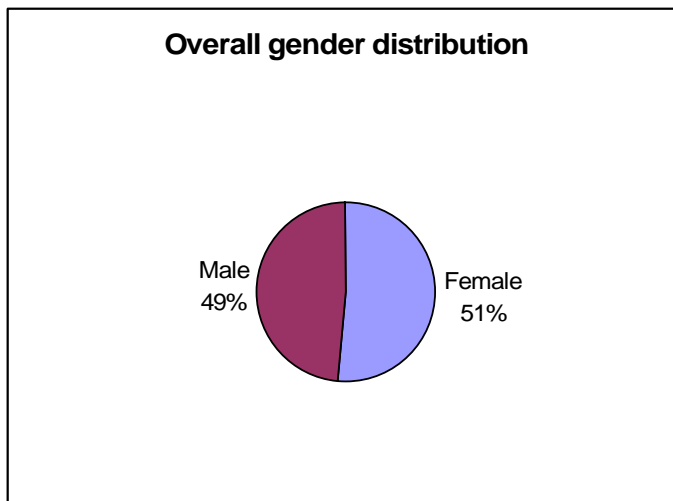
3.1.3 Percentages of the survey population studying each level



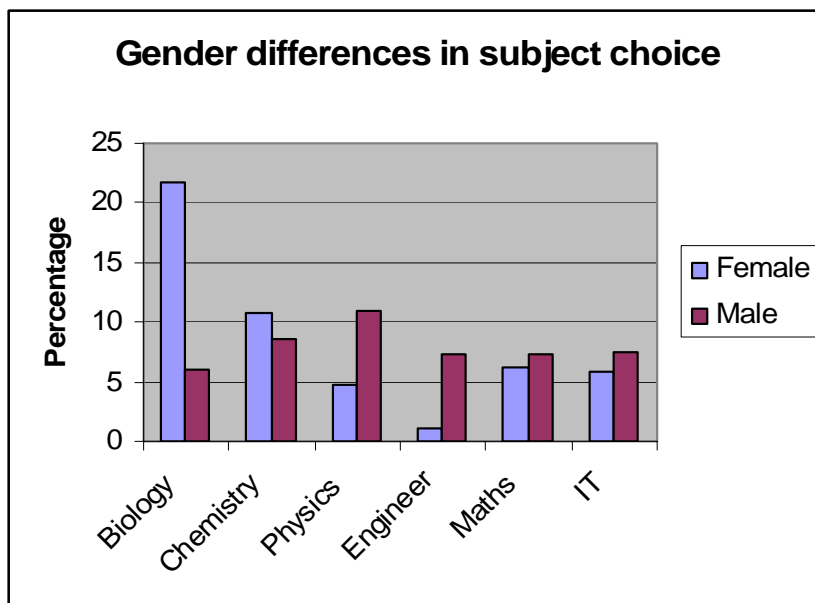
3.1.4 Percentages of the survey population in each age group.



3.1.5 Overall gender profile of the survey population.



3.1.6 Gender differences in subject preference



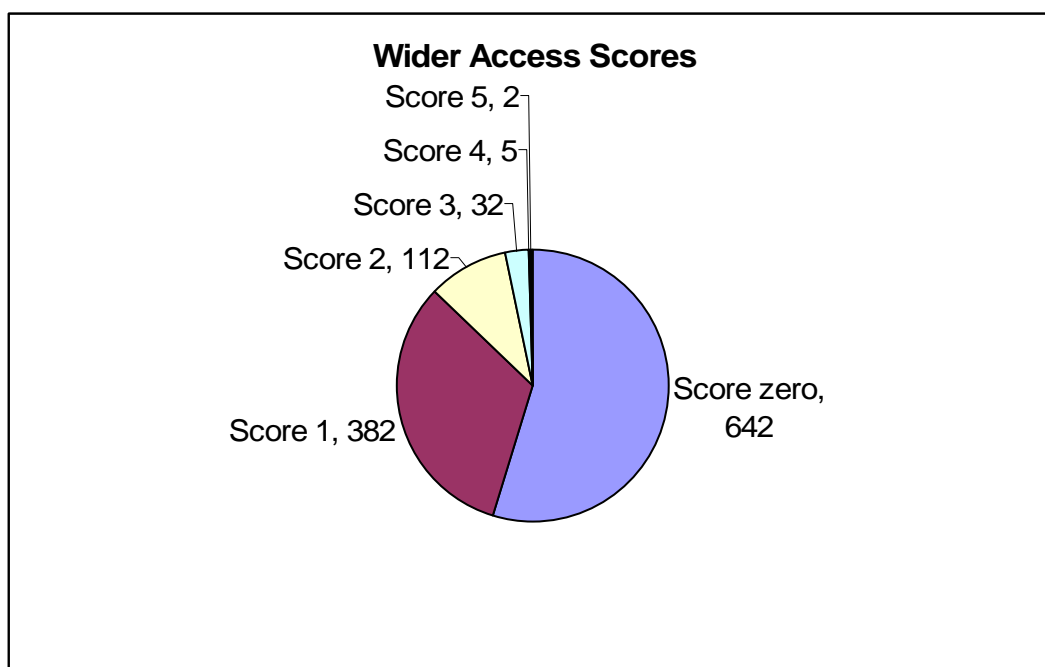
This trend follows through the levels e.g. at both lower and higher levels there are more female students than male students that show biology as their most preferred subject.

3.1.7 Overall Wider Access scores for survey population.

In questions 3.31 – 3.35, a score of 1 was assigned to each question. The maximum Wider Access Score was 5, where a student

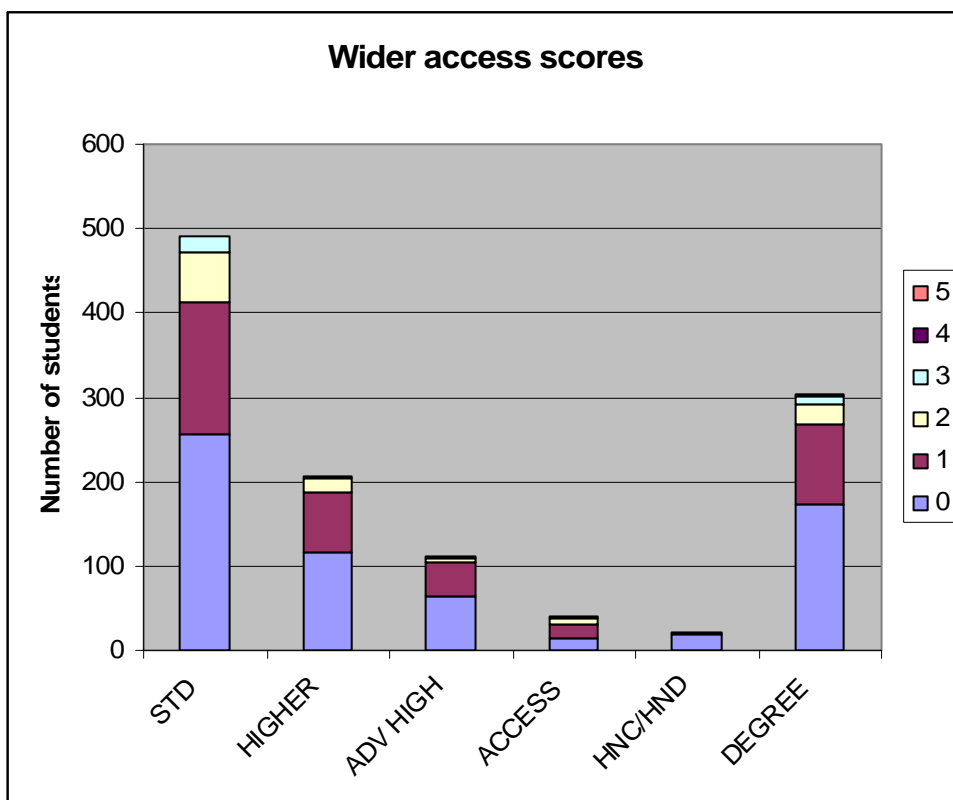
- had no members of their family having studied at College or University
- was entitled to free school meals
- attended a non-English speaking school
- was registered disabled
- had a first language other than English

Those who did not choose any of these options were given a Wider Access Score of zero.



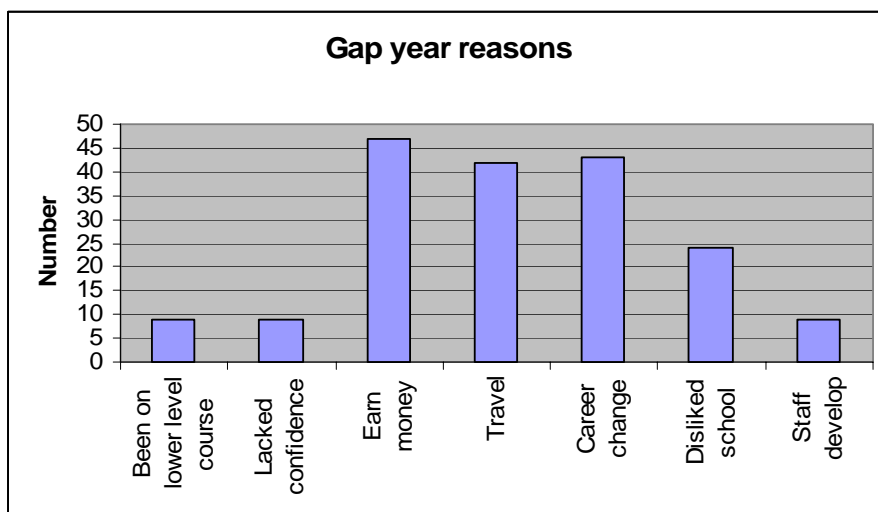
52.5% of those surveyed had a Wider Access Score of zero, 31% had a score of one, 9% a score of two and 2.6% had a score of three and just 0.6% had a score of four or five.

3.1.8 Distribution of wider access scores by level.



3.1.9 Gap years

Of the total 1222 students who completed the survey, 122 had gap years. 690 of the total number were Standard Grade or Higher students, most of whom have not had the opportunity to take gap years. Therefore approximately 23% of students who could have taken gap years actually did. Numbers in the figure below do not add up to 122 because many students chose more than one factor that contributed to their gap year(s)



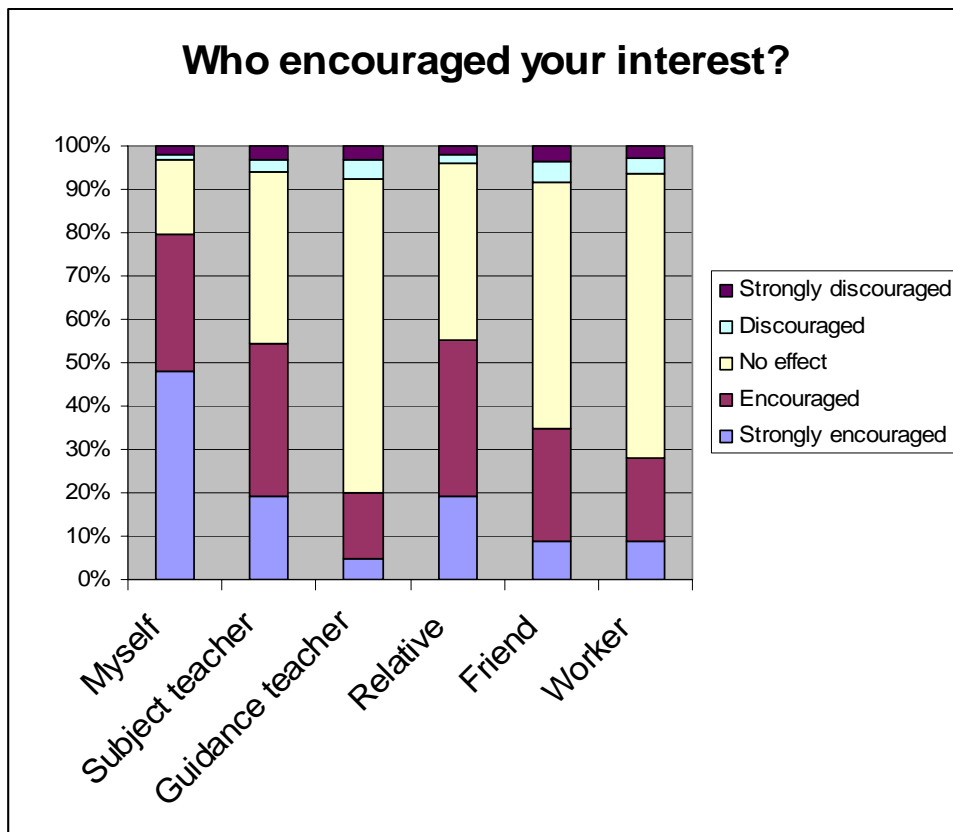
3.2 Overall influences on subject preference.

3.2.1 Overall ranking of influencing factors

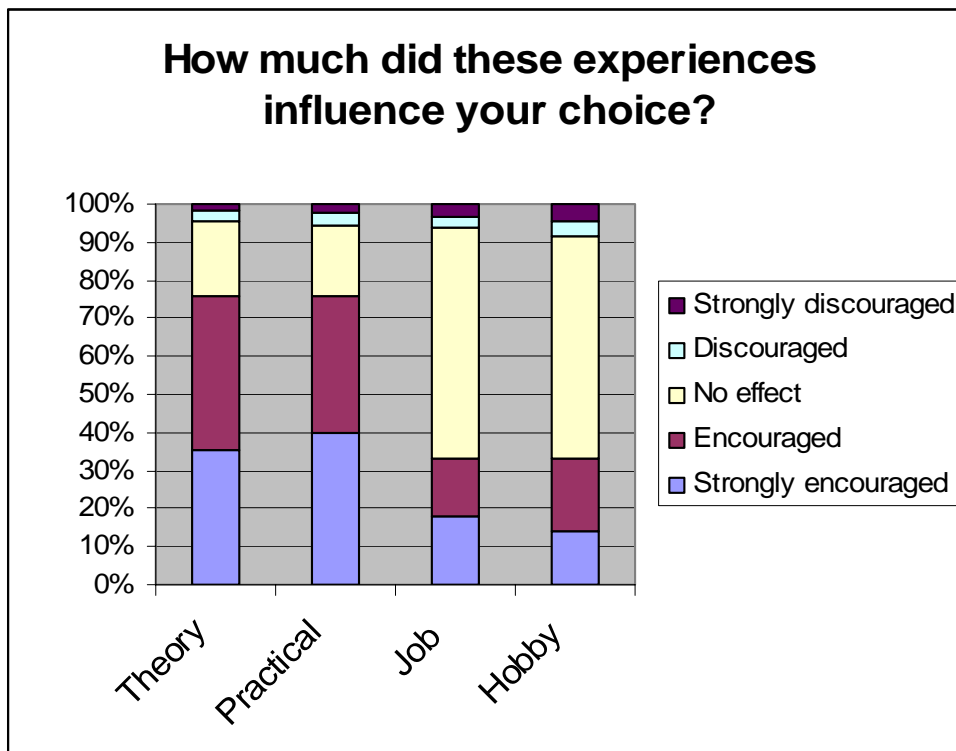
1	No-one, I've always liked it	17	My job
2	I intend to pursue a career in this subject area	18	Talk from a guidance teacher/ careers officer
3	The practical work of the subject in school	19	Adverts for college/ university
4	Learning about the subject theory at school	20	My hobby
5	Good potential salary for working in this area	21	Friend(s) or colleague(s)
6	I enjoyed an event related to this subject	22	A worker in the subject area
7	Parent(s) or relative(s)	23	Non-fictional books
8	School teacher for the subject	24	Films
9	Talk from a person in a related job	25	TV dramas
10	I enjoyed work experience involving this subject	26	Magazines
11	Paper college/ university prospectus	27	Newspapers
12	Online college/ university prospectus	28	Fictional books
13	TV documentaries	29	Guidance teacher
14	Websites on subject related topics	30	I had few or no other options
15	I enjoyed a study trip that involved this subject	31	I didn't get the grades for my first choice
16	I enjoyed a trip to a museum or science centre	32	My parents thought I should take it

See Appendix 6.8, page 78, for further detail.

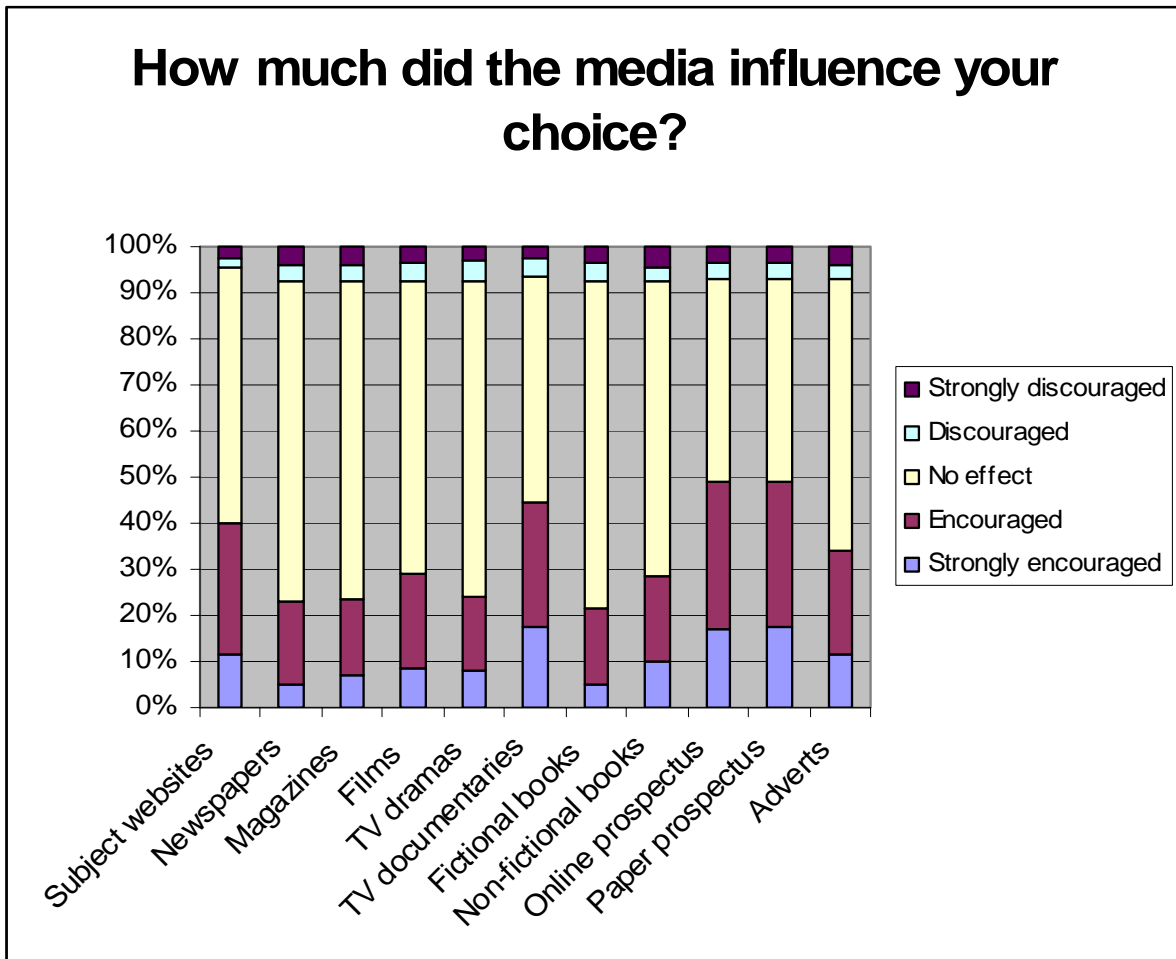
3.2.2 Overall responses to questionnaire section 2.1



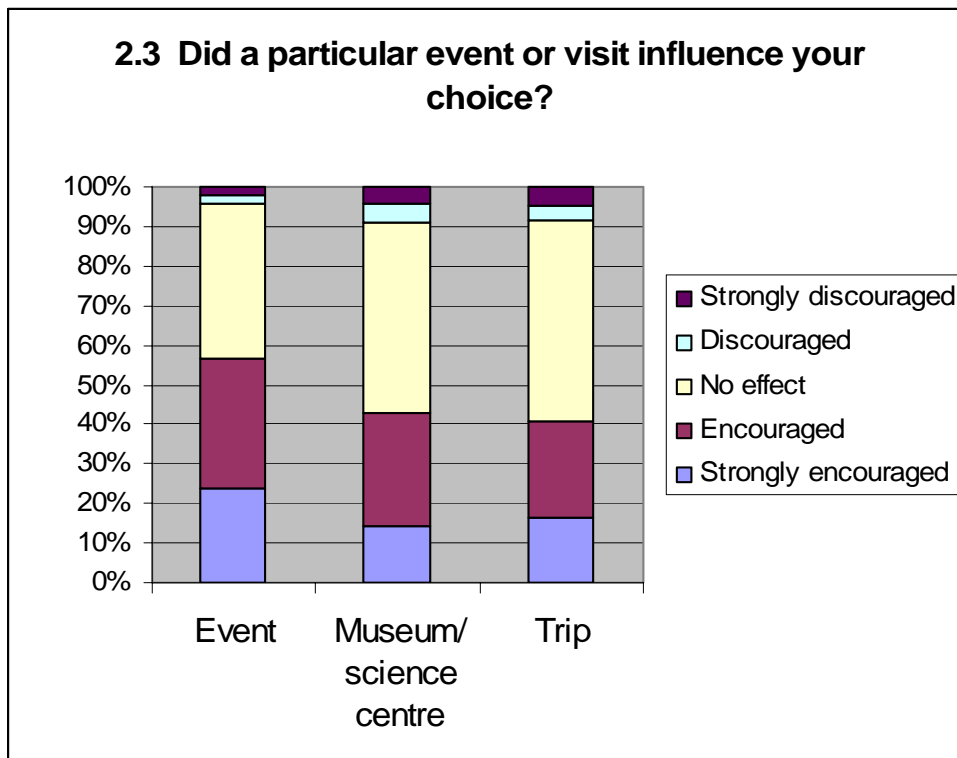
3.2.3 Overall responses to questionnaire section 2.2



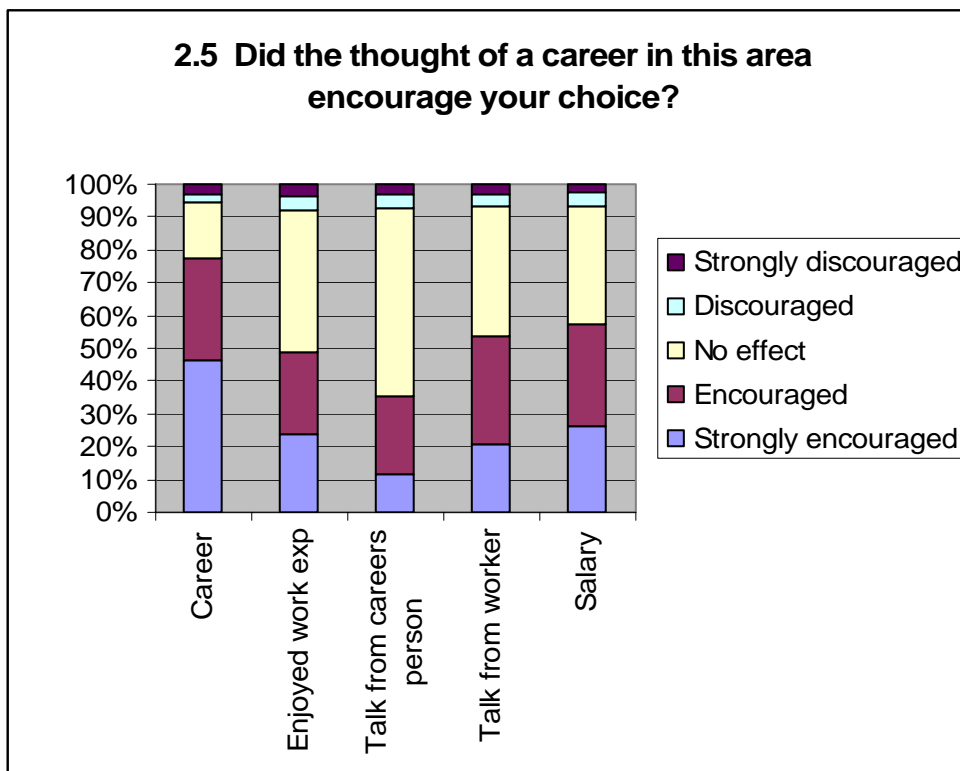
3.2.4 Overall responses to questionnaire section 2.3



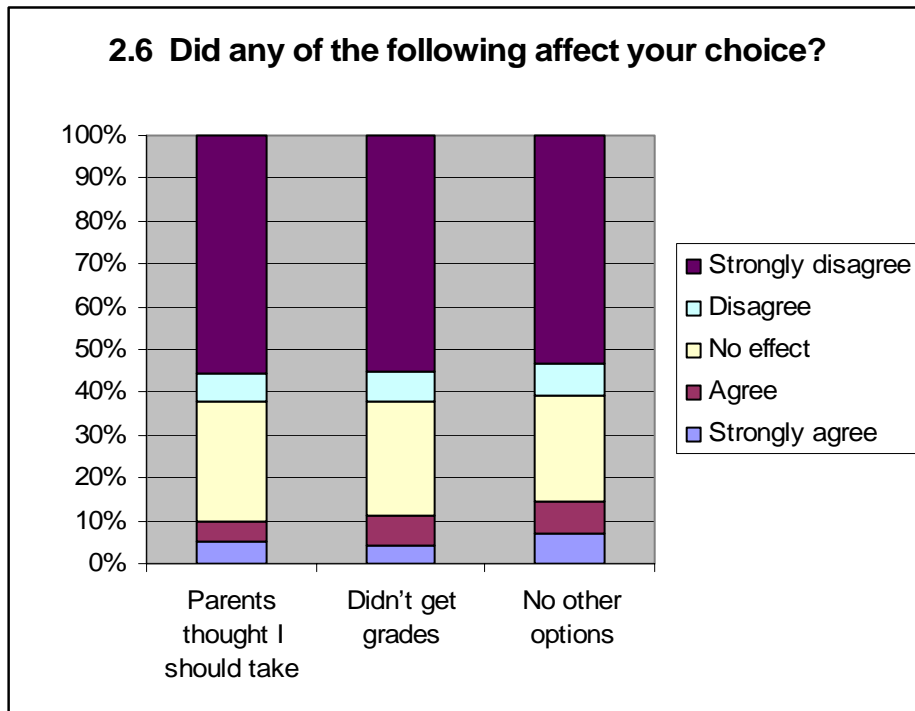
3.2.5 Overall responses to questionnaire section 2.4



3.2.6 Overall responses to questionnaire section 2.5



3.2.7 Overall responses to questionnaire section 2.6



See Appendix 6.7, page 76, for exact figures

3.3 Sub-group differences in influences on subject preference

3.3.1 Differences in ranking of influences with subgroup

	Overall ranking	Degree students only
1	No-one, I've always liked it	Pursue a career in this subject area
2	Pursue a career in this subject area	Subject theory in school
3	Practical work in school	No-one, I've always liked it
4	Subject theory in school	Practical work in school
5	Good potential salary	Work experience involving this subject
6	Event related to this subject	School teacher for the subject
7	Parent(s) or relative(s)	Good potential salary
8	School teacher for the subject	Event related to this subject
9	Talk from a person in a related job	Subject-related websites
10	Work experience involving this subject	TV documentaries
11	Paper college/ university prospectus	Online college/ university prospectus
12	Online college/ university prospectus	Talk from a person in a related job

	Overall ranking	Students eligible for free school meals
1	No-one, I've always liked it	No-one, I've always liked it
2	Pursue a career in this subject area	Pursue a career in this subject area
3	Practical work in school	Practical work in school
4	Subject theory in school	Subject theory in school
5	Good potential salary	Event related to this subject
6	Event related to this subject	Work experience involving this subject
7	Parent(s) or relative(s)	School teacher for the subject
8	School teacher for the subject	Good potential salary
9	Talk from a person in a related job	Parent(s) or relative(s)
10	Work experience involving this subject	Talk from a person in a related job
11	Paper college/ university prospectus	My job
12	Online college/ university prospectus	Trip to museum or science centre

	Overall	No other family member having studied above school level
1	No-one, I've always liked it	No-one, I've always liked it
2	Pursue a career in this subject area	Pursue a career in this subject area
3	Practical work in school	Practical work in school
4	Subject theory in school	Subject theory in school
5	Good potential salary	Event related to this subject
6	Event related to this subject	Good potential salary
7	Parent(s) or relative(s)	School teacher for the subject
8	School teacher for the subject	Paper college/ university prospectus
9	Talk from a person in a related job	Talk from a person in a related job
10	Work experience involving this subject	Online college/ university prospectus
11	Paper college/ university prospectus	Work experience involving this subject
12	Online college/ university prospectus	TV Documentaries

	Overall ranking	Attended a non-English speaking school
1	No-one, I've always liked it	No-one, I've always liked it
2	Pursue a career in this subject area	Pursue a career in this subject area
3	Practical work in school	Practical work in school
4	Subject theory in school	Subject theory in school
5	Good potential salary	Event related to this subject
6	Event related to this subject	Paper college/ university prospectus
7	Parent(s) or relative(s)	Parent(s) or relative(s)
8	School teacher for the subject	Talk from a person in a related job
9	Talk from a person in a related job	Online college/ university prospectus
10	Work experience involving this subject	School teacher for the subject
11	Paper college/ university prospectus	TV Documentaries
12	Online college/ university prospectus	Trip to museum/ science centre

	Overall ranking	Registered Disabled
1	No-one, I've always liked it	No-one, I've always liked it
2	Pursue a career in this subject area	Subject theory in school
3	Practical work in school	Pursue a career in this subject area
4	Subject theory in school	Event related to this subject
5	Good potential salary	School teacher for the subject
6	Event related to this subject	Paper college/ university prospectus
7	Parent(s) or relative(s)	Talk from a person in a related job
8	School teacher for the subject	Practical work in school
9	Talk from a person in a related job	My job
10	Work experience involving this subject	Work experience involving this subject
11	Paper college/ university prospectus	Good potential salary
12	Online college/ university prospectus	Online college/ university prospectus

	Overall ranking	First language not English
1	No-one, I've always liked it	Pursue a career in this subject area
2	Pursue a career in this subject area	No-one, I've always liked it
3	Practical work in school	Practical work in school
4	Subject theory in school	Event related to this subject
5	Good potential salary	Work experience involving this subject
6	Event related to this subject	Subject theory in school
7	Parent(s) or relative(s)	Paper college/ university prospectus
8	School teacher for the subject	Websites on the subject
9	Talk from a person in a related job	Talk from guidance/ careers teacher
10	Work experience involving this subject	Good potential salary
11	Paper college/ university prospectus	Online college/ university prospectus
12	Online college/ university prospectus	School teacher for the subject

Further analyses are available in

Appendix 6.2: Differences in influencing factors with subject preference, page 31

Appendix 6.3: Differences in influencing factors with level, page 41

Appendix 6.4: Differences in influencing factors with wider access score, page 51

Appendix 6.5: Testing for subgroup differences in strength of agreement, page 61

Appendix 6.8: Testing for agreement, page 78

4. Analysis of results

1222 questionnaires in total were analysed. Factor analysis (see Appendix 6.6, page 75) demonstrated that respondents had, for the most part, chosen similar results when answering questions of a similar nature even where those questions were scattered through the questionnaire. This shows that respondents were not filling in the questionnaire randomly – the data collected are relatively reliable.

4.1 Survey population distribution

4.1.1 Subject preference

The graphs on page 5 show the distribution of subject preference among the survey population. Due to difficulties in accessing students, there may be some bias towards certain subjects, however the pattern of subject preference throughout closely mirrors the pattern set by Standard Grade students. The questionnaire was administered to entire year groups of Standard Grade students and therefore this group could be said to most closely represent the general population.

There is anecdotal evidence that subjects such as chemistry, maths and physics are considered more difficult than subjects such as biology and so students may have a tendency to avoid these subjects to ensure a good grade profile at examination. As stated in the results section, the relatively low number showing a preference for engineering may be partly due to there being no school subject of that name.

4.1.2 Level

Relatively few institutions within Tayside and Fife provide HN level or Access level teaching therefore sample numbers for these levels of courses were low.

4.1.3 Age

The majority of the survey population were under 19 years of age. This is expected when surveying those in education.

4.2 Gender

4.2.1 Gender distribution

Gender distribution of respondents reflects that of the general population. Gender distribution at the different levels shows a highly similar pattern to overall gender distribution. The only difference is seen at HND/C level where the effects of one class of engineering students (all male) has a disproportionate effect – access to this level of student was difficult.

4.2.2 Gender differences in subject preference

There were marked differences in gender preference for some subjects. Chemistry, maths and IT were similar in numbers showing preference for these subjects (chemistry had a slight female bias, maths and IT slight male bias). Biology showed a very large female preference; engineering showed a very large male bias and physics showed a large male bias.

It is widely accepted that on average, male and female brains are different, with each generally having better abilities in specific areas. The gender differences seen in the survey population reflect those differing average capabilities.

4.2.3 Gender differences in influencing factors

Gender differences in influence were slight, except that salary appeared to have a much greater influence on boys, with work experience and a talk from a person working in the subject area also having a more positive influence on boys. Girls showed a greater influence by television and books.

4.3 **Wider Access issues**

4.3.1 Wider access issues at different levels of study

The pattern of wider access scores across different levels was remarkably consistent. Access level students showed a slightly higher level of wider access issues. Access courses are designed to allow those who have under-achieved in school, or who have inappropriate prior qualifications, to achieve entry requirements for higher education.

4.4 **Gap years**

Of the 122 students who had taken a gap year (or years), fewer than ten cited a lack of confidence in their own ability as a reason for not proceeding immediately with their education. The reason cited most frequently for taking a gap was the desire to earn money. Changing career was the next most frequently cited reason, followed by taking time to travel.

It seems likely that for the relatively large number who postponed their education to earn money then came back into education, there will be a many who postpone their education and do not return. It is difficult to give up an income once used to it.

4.5 **Overall influences on subject preference**

The survey population were very self-motivated, with 'No-one, I've always liked it' being the influence ranked most highly.

Career and income ranked highly, and a talk from a person in a related job was also influential.

Schoolwork showed a high level of influence, with the practical work encouraging students interest slightly more than the theory. School teachers also encouraged students interest.

Events relating to the subject were important, ranking as the sixth highest influence.

The influence of guidance teachers on subject choice was ranked extremely low, although talks from careers or guidance teachers were ranked slightly higher.

Very few students showed preference for subjects because they were forced to by circumstances or parents.

4.5.1 Who encouraged your interest?

Responses to this question showed that self-motivation was extremely important, with parents and subject teachers having roughly the same high level of influence.

4.5.2 How much did these experiences influence your choice?

Teaching of the theory and practical in school had a high level of influence.

Relatively few respondents cited their job or hobby as having any influence.

4.5.3 How much did the media influence your choice?

Overall the media had relatively little effect on subject preference. College/ university prospectuses had an encouraging effect on around half the survey population, TV documentaries had been important to around 45% of students and subject websites influenced around 40%.

4.5.4 Did a particular event or visit influence your choice?

Over 55% of respondents reported being encouraged in their interest by an event relating to the subject in question. Over 40% were encouraged by a museum/ science centre or a subject specific study trip. Around 5% of the population reported having been strongly discouraged by one of these.

4.5.5 Did the thought of a career in this area encourage your choice?

Nearly 80% of respondents cited career as an influencing factor. Over half the survey population were influenced by the potential to earn a good salary, and by a talk from a worker in a related area.

4.5.6 Did any of the following affect your choice?

Over 60% of the survey population disagreed with the statements 'My parents thought I should take this subject but I'm not really interested in it', 'I didn't get the grades for my first choice' and 'I had few or no other options'. Many of the remainder of the population stated that these had had no effect on their choice, however between 10 and 15% of the population agreed with the statements. This may be because of the inclusion of Standard Grade students who must take at least one science subject and therefore may feel that they have 'no other options'.

4.6 Level subgroup differences (see Appendix 6.3 page 41)

(question numbers refer to those on the questionnaire)

2.1 Who encouraged your interest in this subject?

All levels showed very high levels of self-motivation. School teacher influence was greater for Advanced Higher and Degree students, lower for Access, HN and Standard Grade students. Influence of guidance teachers was very low at all levels. Parental influence was high for HN students.

2.2 Referring to previous experience of the subject

Degree and Adv Higher preferred subject theory. HN preferred practical, with job also being influential.

2.1 Influence of the media

Websites and TV documentaries showed the most influence. Access students showed TV dramas having a high level of influence. This may be skewed by the relatively low number of access students in the study, many of whom were studying for entry to a forensics course.

Information on universities/ colleges was rated low by Standard Grade students. Online prospectuses rated more highly than paper-copy prospectuses. Adverts for colleges/ universities were rated as having a high level of influence, especially by Adv Higher students.

2.2 Events and visits

Students rated 'events' as being influential in their choice. Further work is required to discover exactly the types of events students found encouraging.

2.3 Potential for working in this area

Potential for a career in the particular subject had a very great influence, higher than that of opportunities to earn a good salary.

2.4 'Negative' reasons

General disagreement with this section, showing students in the main follow their own instincts.

4.7 Subject subgroup differences (see Appendix 6.2 page 31)

2.1 Who encouraged your interest in this subject?

Self-motivation very important, especially for engineers. School teacher seems to have more influence when the school subject has the same name as the subject of interest eg engineering is low but there are no 'engineering teachers' in school. Guidance teachers had virtually no influence on any subject area.

2.2 Referring to previous experience of the subject

Practical work in school was slightly more influential than the subject theory. Job and hobby influenced IT and engineering (these subjects show similar influences throughout).

2.3 Influence of the media

TV documentaries and information about universities/ colleges had most influence.

2.4 Events and visits

As in the previous section, 'event' had most influence. Further research required

2.5 Potential for working in this area

Throughout this section, engineers were highly influenced. All the technical subjects showed a higher level of influence than the life sciences.

2.6 'Negative' reasons

General disagreement, though slightly higher levels of agreement from those who preferred IT.

4.8 Wider Access subgroup differences (see Appendix 6.4 page 51)

In this section, those with Wider Access Scores of 1, 2 and 3 will be considered. Only a very tiny number of students had scores of 4 or 5, giving very biased readings on the graphs.

4.8.1 Overall Wider Access subgroup differences

2.1 Who encouraged your interest in this subject?

There is a slight trend towards being generally 'more discouraged' as the number of wider access issues increases. Guidance teachers and workers in the subject area had least influence; self-motivation, subject teachers and parents had the most.

2.2 Referring to previous experience of the subject

Job becomes more influential with increasing number of wider access issues.

2.3 Influence of the media

The media generally seems to have more influence as number of wider access issues increases. College/ university information has less influence as wider access score increases.

2.4 Events and visits

Although there is no huge difference, the influence of events seems to increase slightly with increasing wider access score.

2.5 Potential for working in this area

Salary appears to become less of an influencing factor as wider access score increases.

2.6 'Negative' reasons

There is a marked increase in agreement with these statements with increasing wider access score, contrasting markedly with other subgroups and with the survey population as a whole.

4.8.2 Detailed wider access subgroup differences:

Students who attended a non-English speaking school ranked salary, friends and colleagues and talks from guidance/ careers teachers more highly than the overall population.

Students having no other family member study beyond school level ranked subject teachers, job and hobby more highly than the overall population. They ranked parents and relatives lower.

Students who were entitled to free school meals ranked work experience involving the subject more highly than the overall population. They ranked potential salary lower, parents/ relatives lower but other people (guidance/ subject teachers, friends, workers in the subject area) more highly.

Students who were registered disabled ranked their job or the influence of a person working in the subject area much more highly than the general population. They also ranked guidance teachers much more highly than the general population or any other subgroup. In all other subgroups, guidance teachers were ranked bottom in terms of their influence.

Students whose first language was other than English ranked a career in the subject area as top. The overall top ranking, and that for most subgroups, was the self-motivated 'I always liked it'. Despite career aspirations, salary was ranked much lower by these students than by the overall population. These students also ranked parents/ relatives and workers in the subject area much lower than the overall population, school teachers somewhat lower but a study trip involving the subject was ranked much higher than the overall population.

4.9 Additional comments

This section was misunderstood by some respondents:

'The beer is cheap. Halls are good. Could we get a bin in the kitchen?'

However others offered food for thought:

'I think the school should get us more involved in outdoor activities as biology is to do with the outdoors.' (x2)

'Biology would be much better if we had more experiments and trips.'

'We were made to take up a science subject when we chose our subjects for Standard Grade. Probably wouldn't of taken a science subject if I had the choice.'

'I believe there is a decline because people are not clever enough to pass or don't think they will be. Sciences are notoriously difficult and people know this and are discouraged by this.'

'I think that more time should be spent talking to pre-standard grade students as they don't really know what the sciences offer and what careers you can get into from it.'

The full list of additional comments is available in Appendix 6.9, page 90. Spellings have not been changed.

5. Conclusion and Recommendations

5.1 Conclusion

The results of the survey are in many ways encouraging – students that choose science, technology, engineering and maths (STEM) subjects show high levels of self motivation and do not appear to allow issues such as low income, language barriers, disabilities or lack of home support to get in the way of their interests. They are more concerned with an interesting career than a huge income, and they do not feel they have been forced into making subject choices by circumstances or relatives.

The reason most commonly cited by students for their subject preference was “just liking the subject”. Whilst this is encouraging, the scope of this research does not permit further investigation into the factors which made the subjects “likeable”. STEM subjects are still viewed as notoriously difficult in comparison to the “softer” subjects, and whilst this is not necessarily accurate, the image of STEM subjects needs to be altered to counter this misconception.

5.2 Recommendations

5.2.1 Gender differences

The survey clearly highlighted gender differences in subject preference across the different levels of education. Initiatives in the past have attempted to reduce these differences – to encourage more women into technical subjects and more men into life-science subjects. These initiatives have never been very successful – perhaps it is time to accept that these differences in interests are to a larger extent the effects of gender difference rather than cultural stereotyping. With this in mind, emphasis should be placed on encouraging small numbers of students (particularly in schools) who might show some level of interest in a subject but need extra encouragement to help them decide whether that subject provides a viable career path. For example, trying to attract large numbers of women into engineering is unlikely to be successful, however giving special attention to those students (both male and female) who show some aptitude or interest in engineering might help to increase their appreciation of what the subject can offer.

5.2.2 Guidance teaching/ careers advice

Throughout the survey, guidance teachers were rated as having virtually no influence on subject choice. This may be because guidance teachers are stretched with aspects of their job that do not involve careers advice, or it may be indicative of a requirement either for training or a change in the schools system for careers advice.

Talks from guidance teachers or careers officers were rated slightly more highly in terms of their positive influence, however this could probably be improved. Talks from workers in related subject areas were rated more highly by most groups of respondents. Perhaps there could be more integration between all the careers advice systems. Careers officers could be recruited from a wide variety of different industries and act in a peripatetic manner so that all schools received talks and advice from a very applied point of view.

Talks from guidance teachers/ careers officers were rated as having a positive influence by those whose first language was not English. It may be possible to focus more attention by these teachers on this population subgroup.

5.2.3 Events

Events relating to subjects were highly rated throughout the survey. Further research is required into type of event that was most influential. Events with science, technology, engineering or maths themes should be encouraged, especially in schools.

5.2.4 Applied subjects

Common knowledge suggests that students engage more with a subject when it is applied. Engineering is the application of maths and physics, but in schools maths and physics tend to be taught in the abstract. In maths particularly it can be very difficult to see possible applications of the theory. If engineering were taught as a school subject, more students might be inspired to go on to follow an engineering career.

Making subjects more applied could occur to a lesser extent across the board – many school pupils enjoy computer games and mobile phones but do not link these to information technology; everything from cookery to textiles to forensic science involves chemistry; biology can be applied to gardening, beauty, pet care as well as conservation and climate change.

5.2.5 Student funding

Funding of students who choose further or higher education should be reviewed. It would be interesting to compare the numbers of school leavers who choose employment over education for financial reasons to those who left school during the era of government grants for all students. Although in recent years there have been moves to increase numbers of school leavers entering further or higher education, these moves do not seem to have addressed the financial situation of students. The benefits system could be modified to include students.

5.2.6 Effects of the media

TV documentaries showed the highest level of influence of the general media.

Documentary programmes could include links to careers information at the end of the programme (with the links to further information for people who have been affected by x). Soap operas and sitcoms are very popular forms of entertainment. A soap opera based in a college or university would do much to demystify further or higher education. A science-based sitcom could work well.

The influence of the internet should not be underestimated. In this technological age it is not surprising to find that the media have an important role to play in influencing students choices; as such they should be exploited to the full.

5.2.7 Parental perception of education

Encouragement from parents or relatives was ranked as the 7th most important influence overall. In the subgroups studied only those eligible for free school meals and those who had attended a non-English speaking school ranked this form of encouragement in their top twelve.

Providing information for parents in an interesting and user-friendly manner could help to increase uptake to higher levels of education. Information should include the benefits of a career in a STEM industry (including very clear information on potential income). It should also include sources of help with the cost education for families on low income. The information could perhaps take a similar form to the Wider Access theatre project that aimed to promote discussion on handling difficult situations that can occur at home with regard to teenage school pupils. Short sketches could be prepared that pupils themselves could act out, perhaps as a more entertaining form of parents night. In this manner, both pupils and parents could receive important information in a form that is easy to digest.

6. Appendices

6.1 Sample questionnaire



‘Choosing Science’

sponsored by Fife and Tayside Wider Access Forum

This project aims to identify the factors that lead to people choosing to study **science**, **technology**, **engineering** or **maths** (STEM).

You have been asked to complete this questionnaire because you have chosen to study in one (or more) of the STEM areas. I would be very grateful if you could take the time to answer all the questions.

Please **DO NOT** put your name on this questionnaire – the survey is entirely anonymous and it will be analysed by a computer.

Please mark your answers by filling in the relevant circle

e.g.    

You will be asked to grade each statement on the questionnaire according to your experiences. There are five possible choices running from positive to negative, and also a ‘not applicable’ choice. Use the ‘not applicable’ (N/A) choice if you have never experienced what the statement is referring to.

If you are interested in the results of this study, please e-mail







c202939@stem.abertay.ac.uk

THANK YOU VERY MUCH FOR YOUR TIME







Tayside STEM Partnership, University of Abertay Dundee, Bell Street, Dundee, DD1 1HG

1. The first section is about the STEM course(s) you have chosen.







1.1 Which subject that you are currently studying do you enjoy the most?

Biology 	Chemistry 	Physics 	Engineering 	Maths 	I.T. 
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1.2 Please mark the level of the subject you've chosen in 1.1.

Standard Grade 	Higher 	Advanced Higher 	Access 	HNC/HND 	Degree 
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



2. This section is on the factors that affected your decision to take the subject you have marked in section 1.

	Strongly encouraged me		Had no effect		Strongly discouraged me	N/A
2.1 Who encouraged your interest in this subject?						
No-one, I've always liked it	<input type="checkbox"/>		◀	▶	▲	⊙
School teacher for the subject	<input type="checkbox"/>		◀	▶	▲	⊙
Guidance teacher	<input type="checkbox"/>		◀	▶	▲	⊙
Parent(s) or relative(s)	<input type="checkbox"/>		◀	▶	▲	⊙
Friend(s) or colleague(s)	<input type="checkbox"/>		◀	▶	▲	⊙
A worker in this subject area	<input type="checkbox"/>		◀	▶	▲	⊙




2.2 How much did each of the following encourage your choice?

Learning about the subject theory at school	<input type="checkbox"/>		◀	▶	▲	⊙
The practical work of the subject in school	<input type="checkbox"/>		◀	▶	▲	⊙
My job	<input type="checkbox"/>		◀	▶	▲	⊙
My hobby	<input type="checkbox"/>		◀	▶	▲	⊙

2.3 How much did the following media encourage your choice?

Websites on subject-related topics	<input type="checkbox"/>		◀	▶	▲	⊙
Newspapers	<input type="checkbox"/>		◀	▶	▲	⊙
Magazines	<input type="checkbox"/>		◀	▶	▲	⊙
Films	<input type="checkbox"/>		◀	▶	▲	⊙
TV dramas	<input type="checkbox"/>		◀	▶	▲	⊙
TV documentaries	<input type="checkbox"/>		◀	▶	▲	⊙
Fictional books	<input type="checkbox"/>		◀	▶	▲	⊙
Non-fictional books	<input type="checkbox"/>		◀	▶	▲	⊙
Online college/ university prospectus	<input type="checkbox"/>		◀	▶	▲	⊙
Paper college/ university prospectus	<input type="checkbox"/>		◀	▶	▲	⊙
Adverts for college/ university	<input type="checkbox"/>		◀	▶	▲	⊙

2.4 Did a particular event or visit encourage your choice?

I enjoyed an event that related to this subject	<input type="checkbox"/>		◀	▶	▲	⊙
I enjoyed a trip to a museum or science centre	<input type="checkbox"/>		◀	▶	▲	⊙
I enjoyed a study trip that involved this subject	<input type="checkbox"/>		◀	▶	▲	⊙

2.5 Did the thought of a career in this subject area encourage your choice?	Strongly encouraged me		Had no effect		Strongly discouraged me	N/A
I intend to pursue a career in this subject area	<input type="checkbox"/>		◀	▶	▲	⊗
I enjoyed work experience involving this subject	<input type="checkbox"/>		◀	▶	▲	⊗
Talk from guidance teacher/ careers officer	<input type="checkbox"/>		◀	▶	▲	⊗
Talk from a person in a related job	<input type="checkbox"/>		◀	▶	▲	⊗
The good potential salary for working in this area	<input type="checkbox"/>		◀	▶	▲	⊗

2.6 Did any of the following affect your choice?	Strongly agree				Strongly disagree	N/A
My parents thought I should take this subject but I'm not really interested	<input type="checkbox"/>		◀	▶	▲	⊗
I didn't get the grades for my first choice	<input type="checkbox"/>		◀	▶	▲	⊗
I had few or no other options	<input type="checkbox"/>		◀	▶	▲	⊗

The last questions are about you. Please remember that the whole survey is anonymous.

3.1 What is your age group?

- 14-16
- 17-19
- 20-22
- 23-25
- 26+

- 3.2 Are you
- male?
 - female?

3.3 These questions relate to widening participation in STEM subjects.

	Yes	No
Have any members of your close family studied at University or College?	♥	●
Are/ were you entitled to get free school meals?	♥	●
Did you attend an English-speaking school?	♥	●
Are you registered disabled?	♥	●
Is English your first language?	♥	●

3.4 Did you have a gap year or years between leaving school and beginning this course? If you did have a gap year please answer question 3.5. If you did not, please go to section 4.

- Yes
♥
- No
●

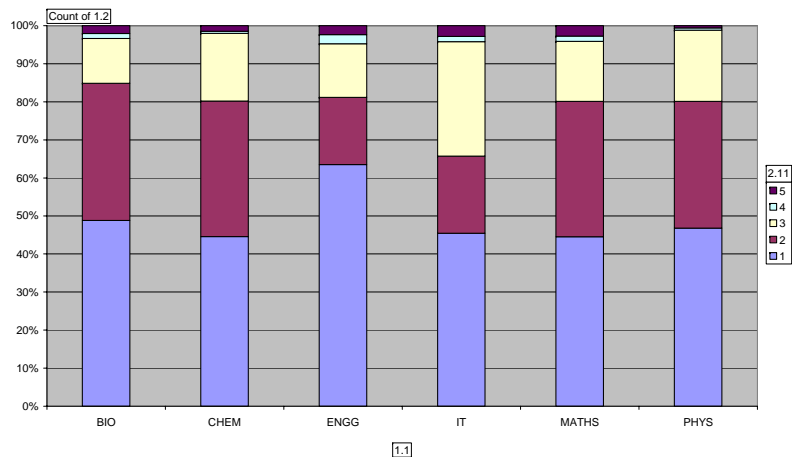
3.5 Why did you have a gap?

	Yes	No
I have been on a lower level STEM course	♥	●
I lacked confidence in my ability to do well in a STEM subject	♥	●
I wanted to earn money as soon as I finished school	♥	●
I took time to travel	♥	●
I trained in another area and now plan to change career	♥	●
I disliked the school education system	♥	●
I am taking this course as part of my staff development	♥	●

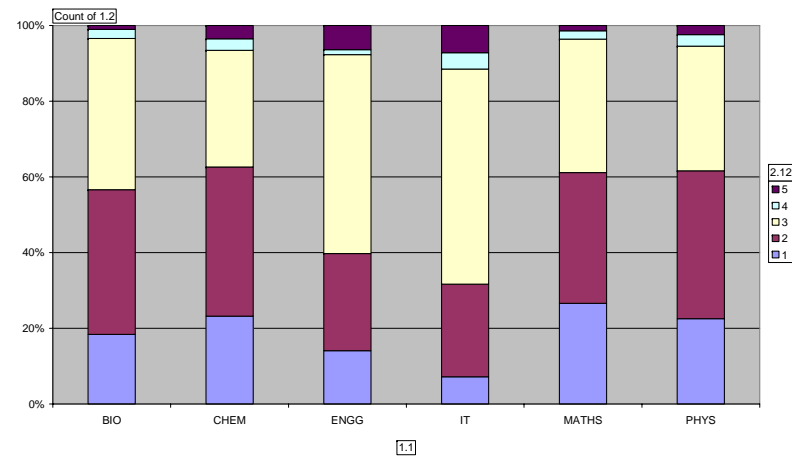
4. If you would like to make any additional comments, please use the space below.

6.2 Differences in influencing factors with subject preference.

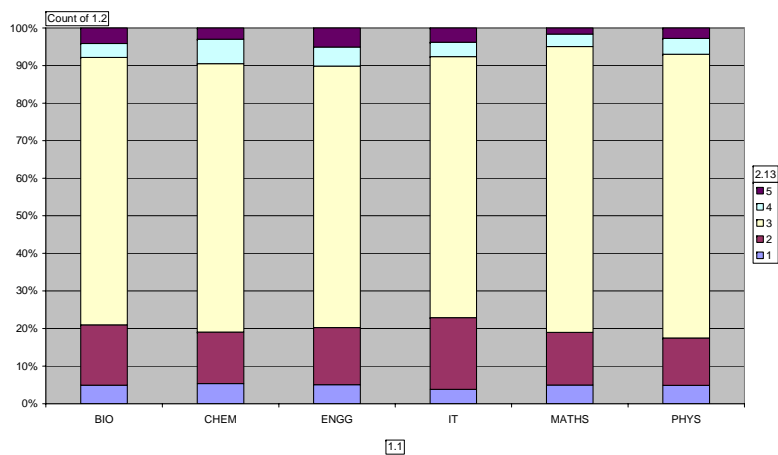
Subject



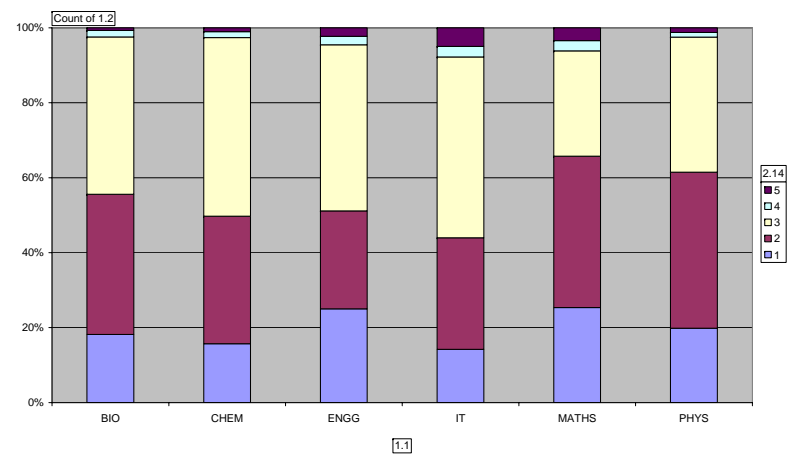
2.11 No-one, I've always liked it



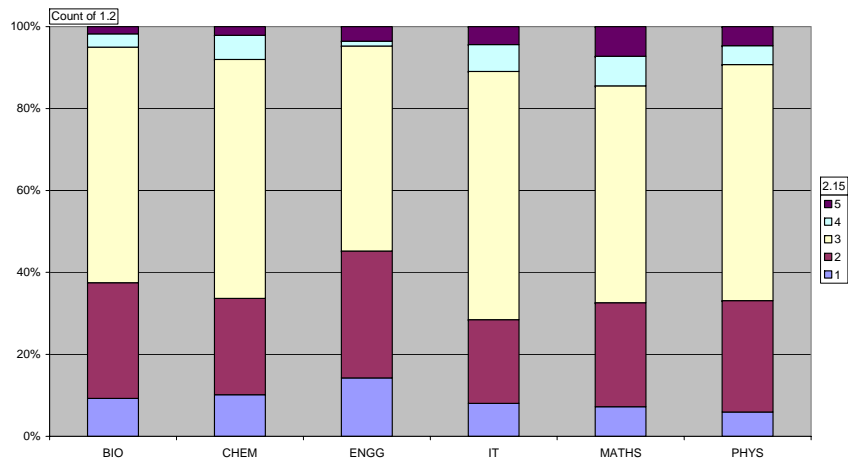
2.12 School teacher for subject



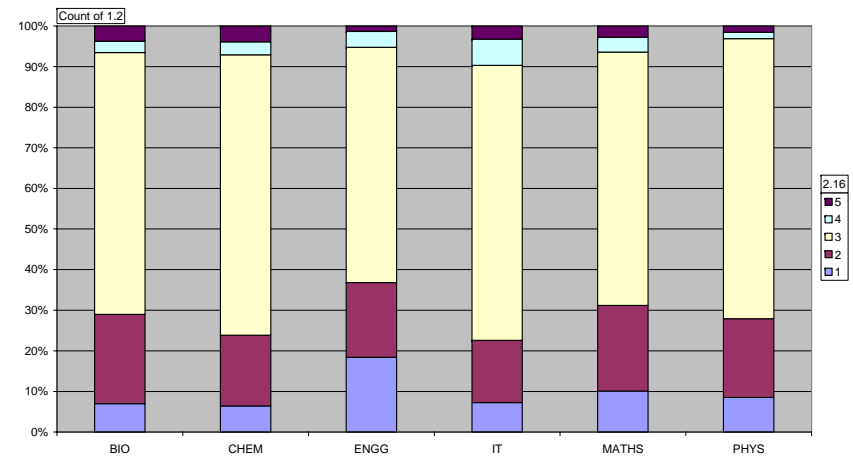
2.13 Guidance teacher



2.14 Parent(s) or relative(s)

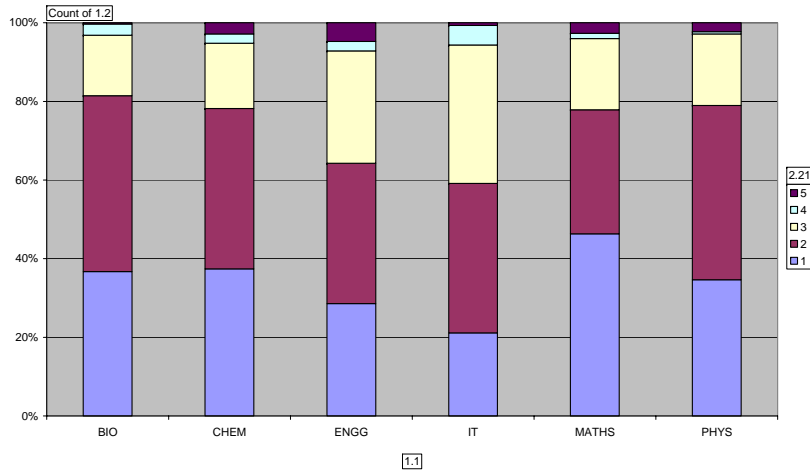


2.15 Friend(s) or colleague(s)

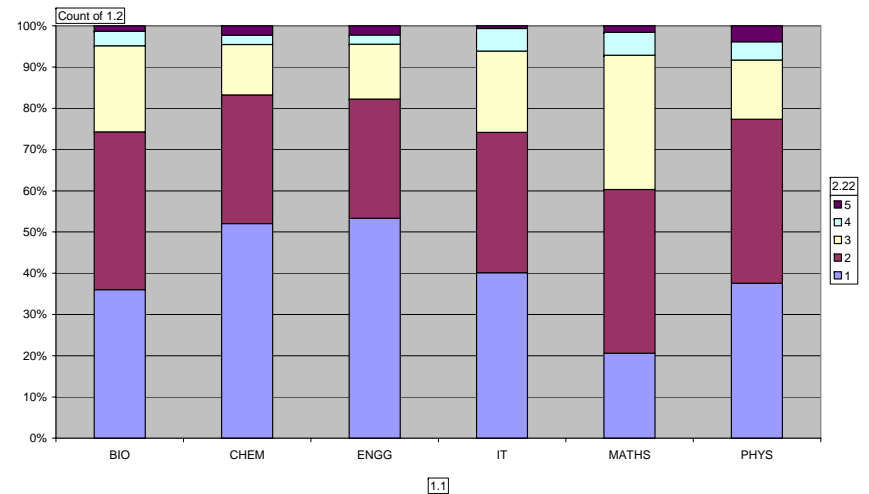


2.16 A worker in the subject area

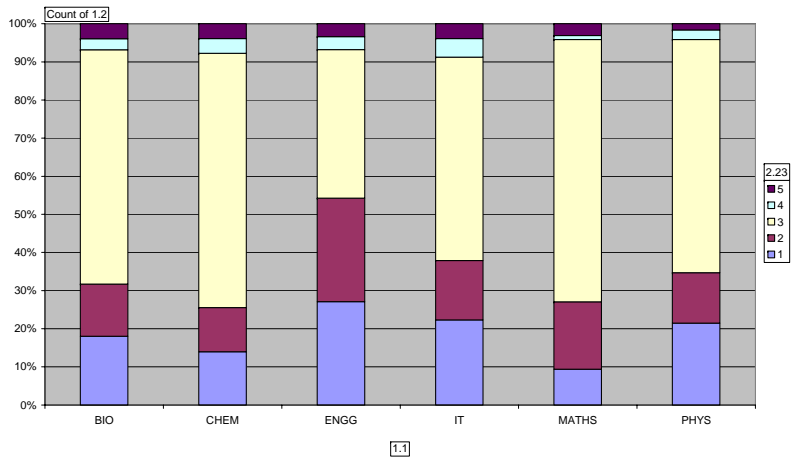
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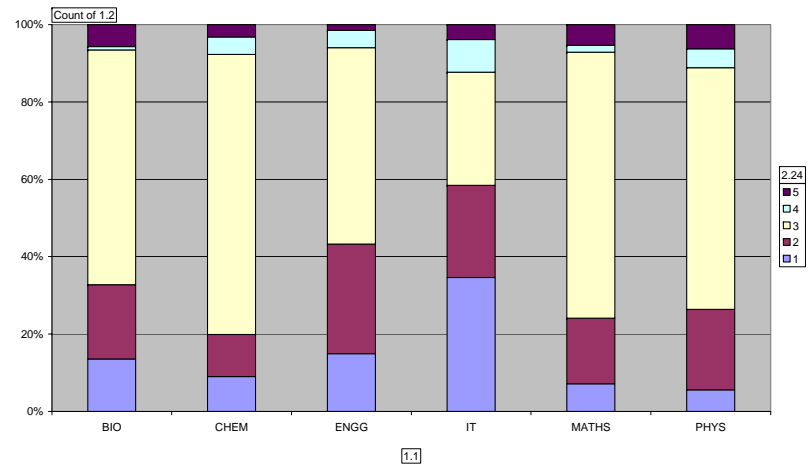
2.21 Learning about the subject theory in school



2.22 The practical work of the subject in school

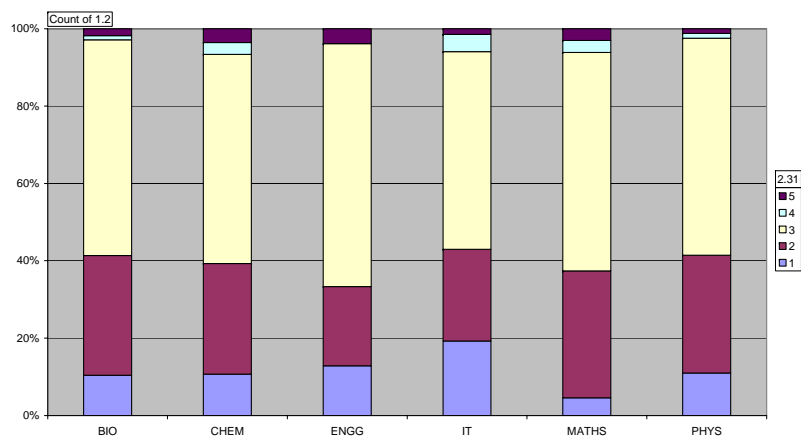


2.23 My job

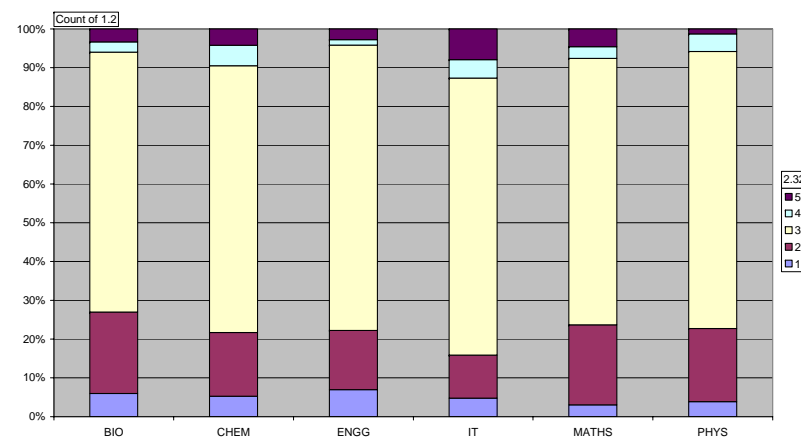


2.24 My hobby

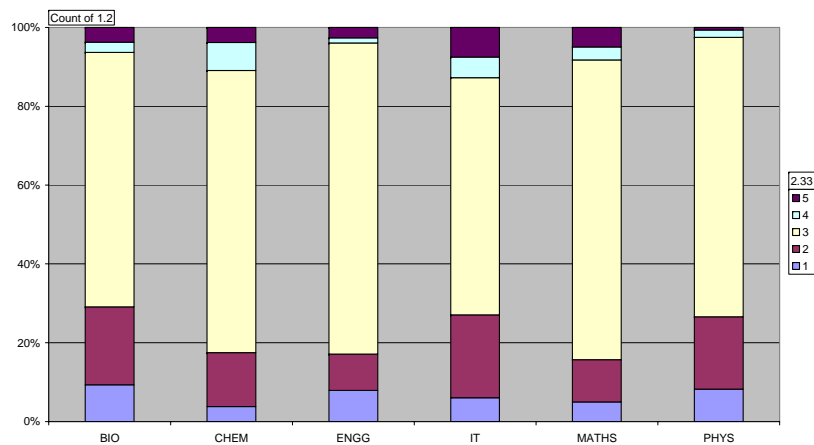
Subject



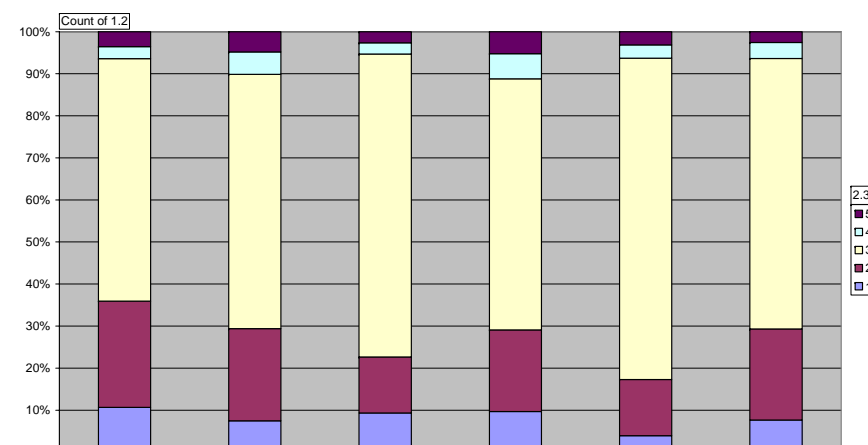
2.31 Websites on subject related topics



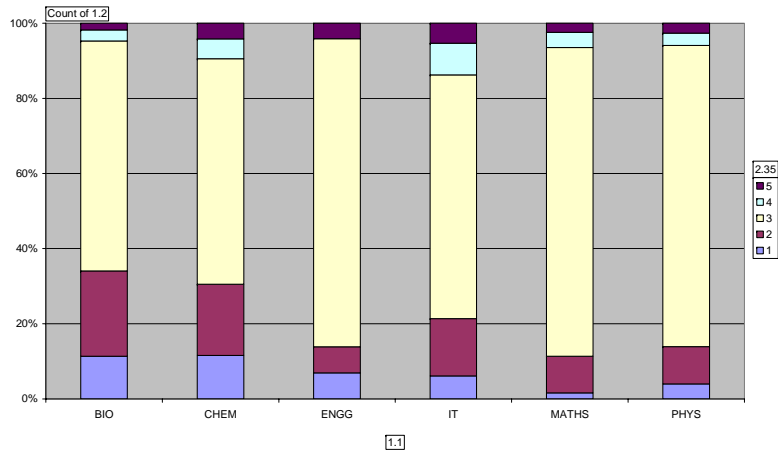
2.32 Newspapers



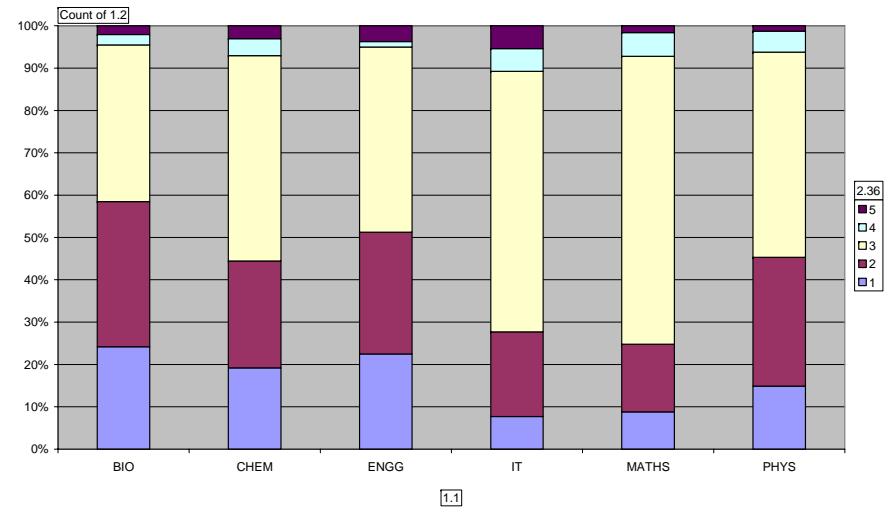
2.33 Magazines



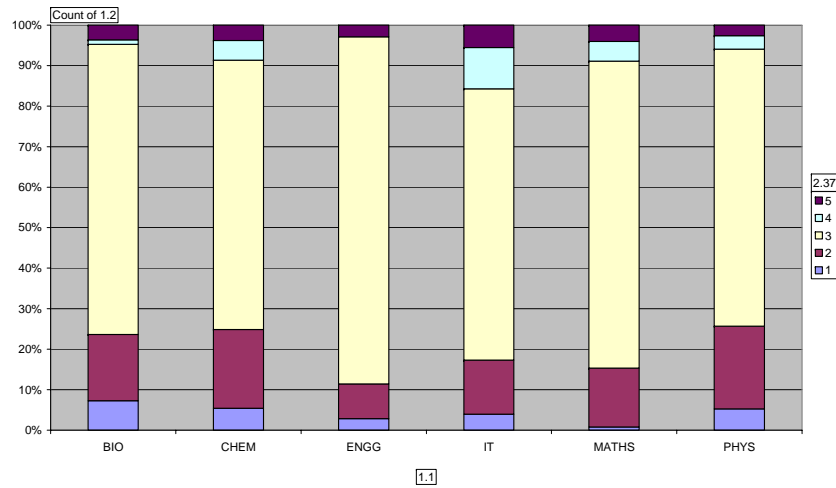
2.34 Films



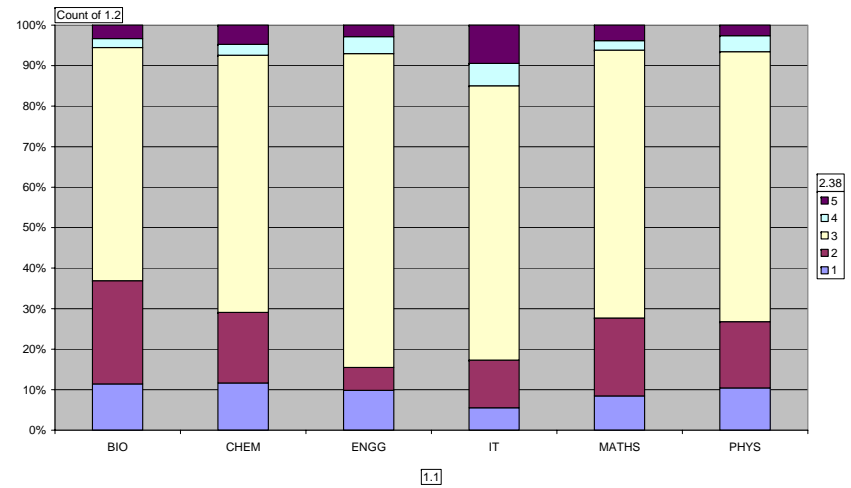
2.35 TV dramas



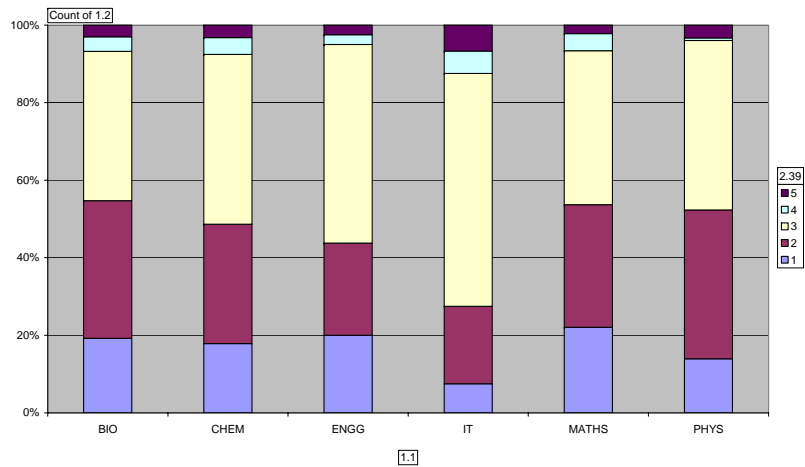
2.36 TV documentaries



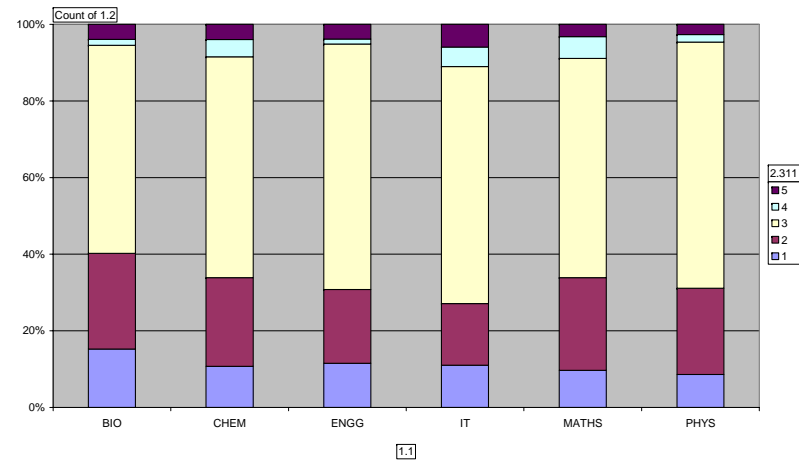
2.37 Fictional books



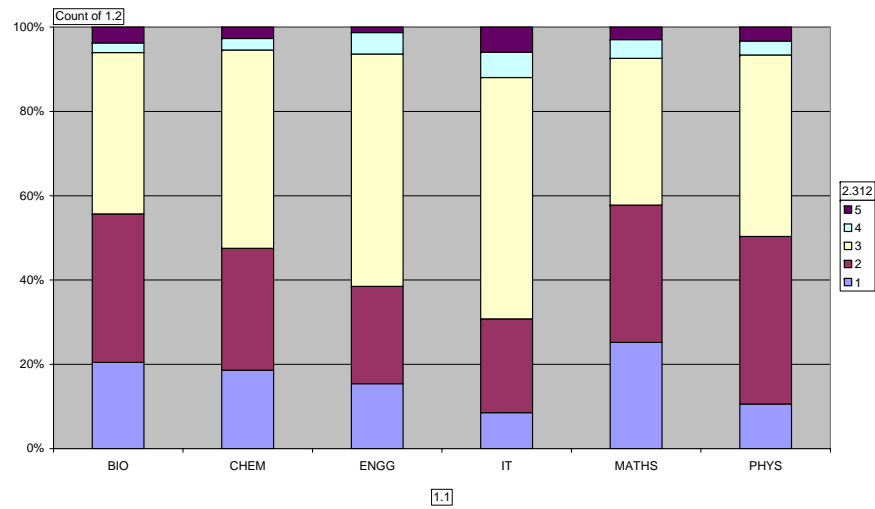
2.38 Non-fictional books



2.39 Online college/ university prospectus

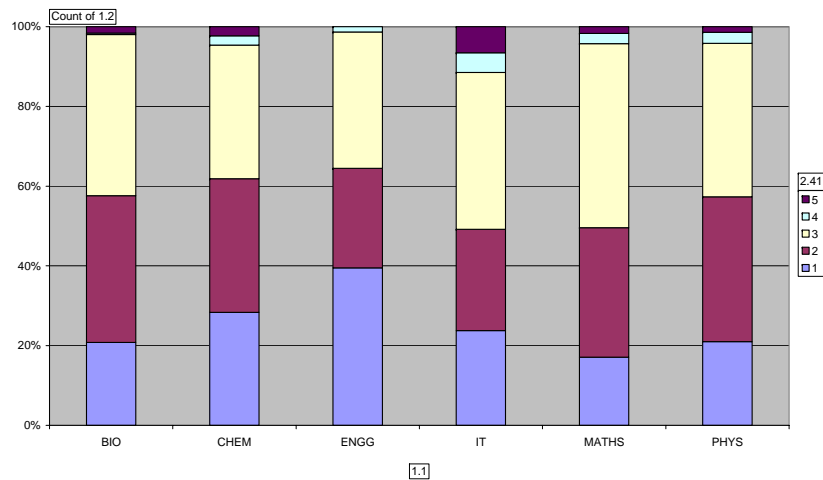


2.310 Paper college/ uni prospectus

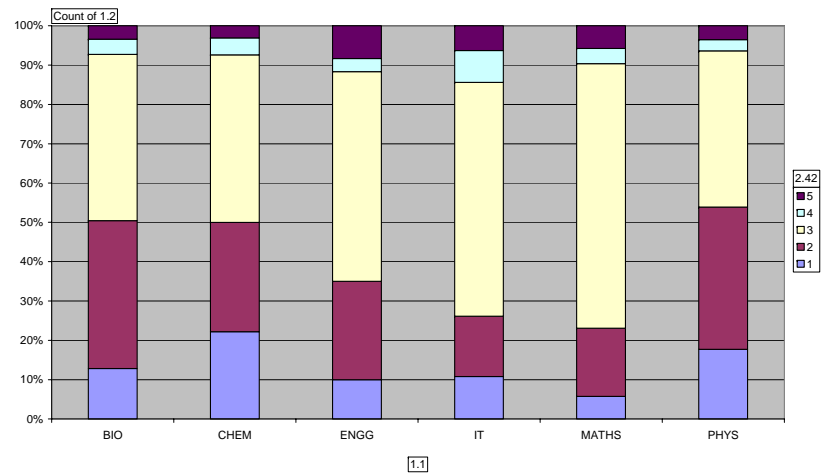


2.311 Adverts for college/ university

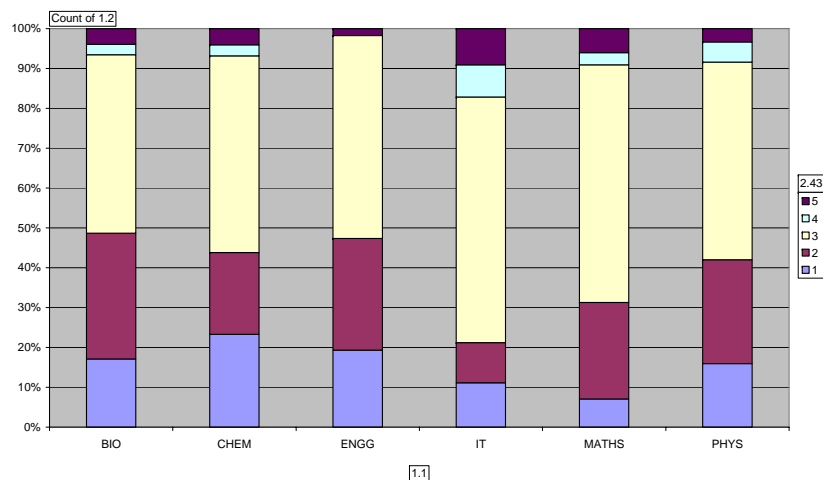
Subject



2.41 I enjoyed an event that related to this subject

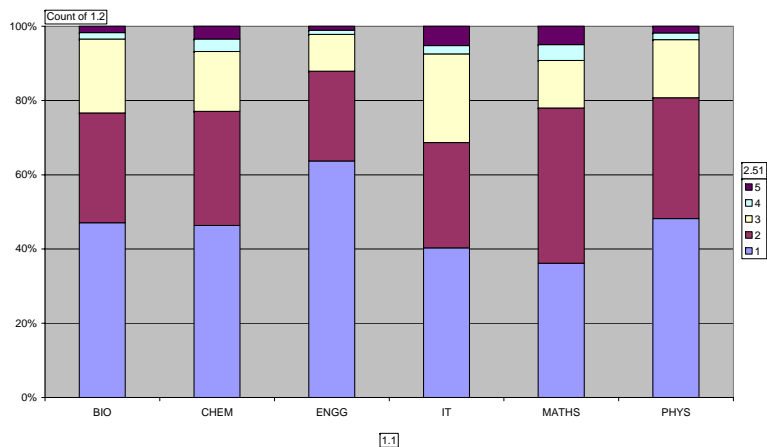


2.42 I enjoyed a trip to a museum or science centre

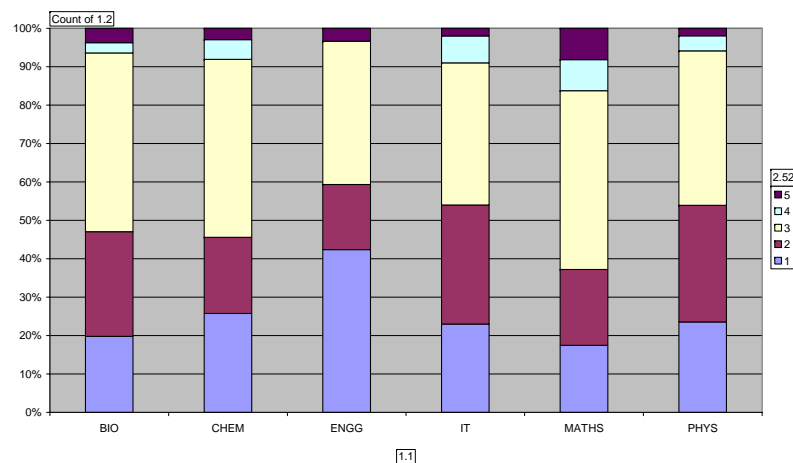


2.43 I enjoyed a study trip that involved this subject

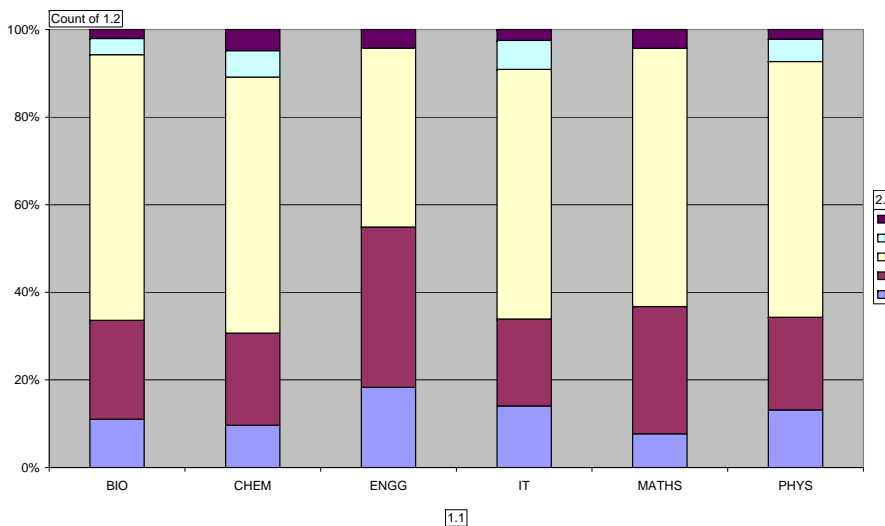
Subject



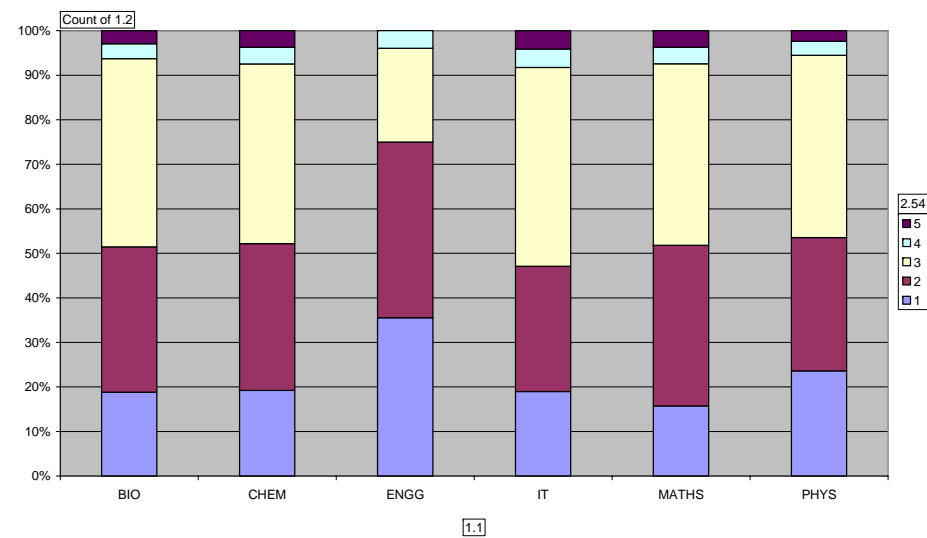
2.51 I intend to pursue a career in this subject area



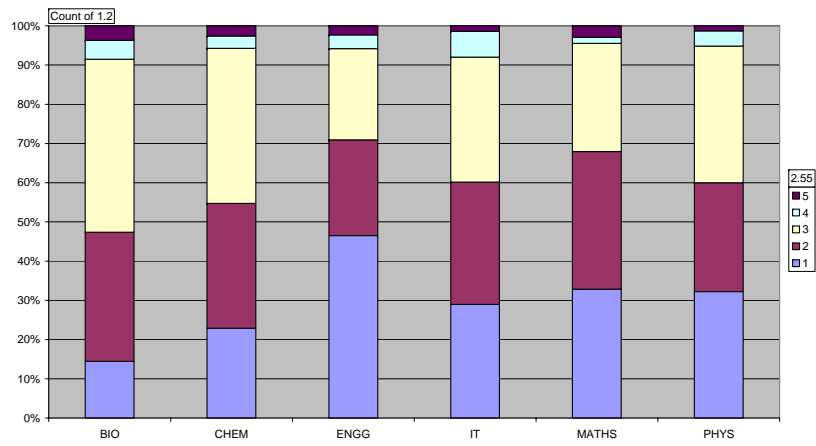
2.52 I enjoyed work experience involving this subject



2.53 Talk from guidance teacher/ careers officer

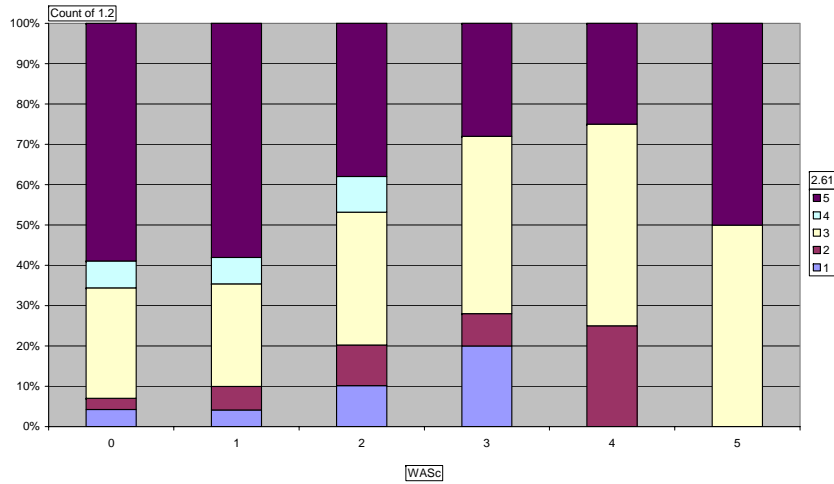


2.54 Talk from a person in a related job

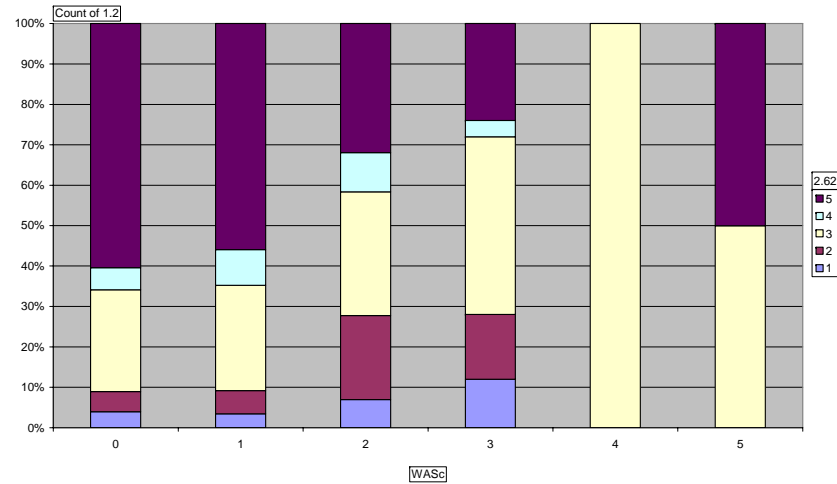


2.55 The good potential salary for working in this area

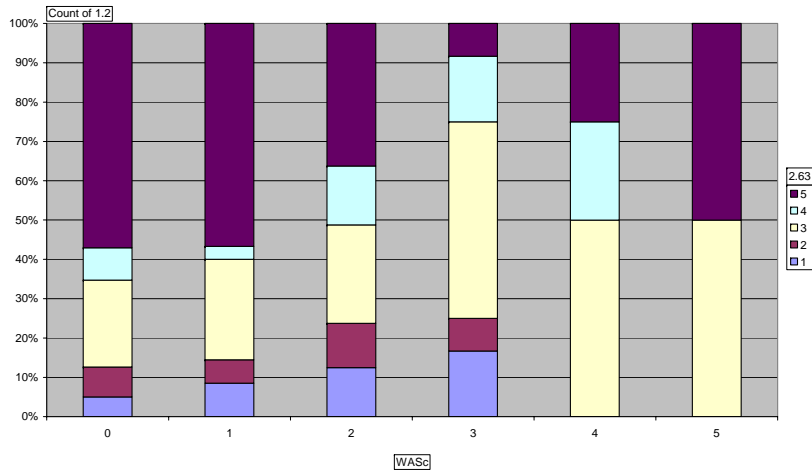
Subject



2.61 My parents thought I should take but I'm not really interested

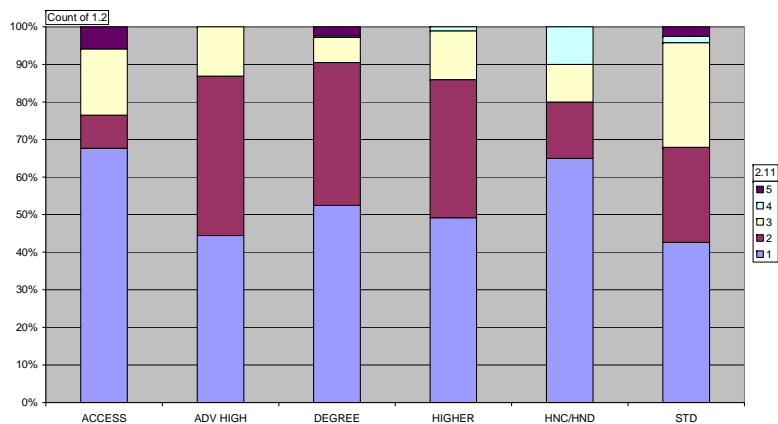


2.62 I didn't get the grades for my first choice



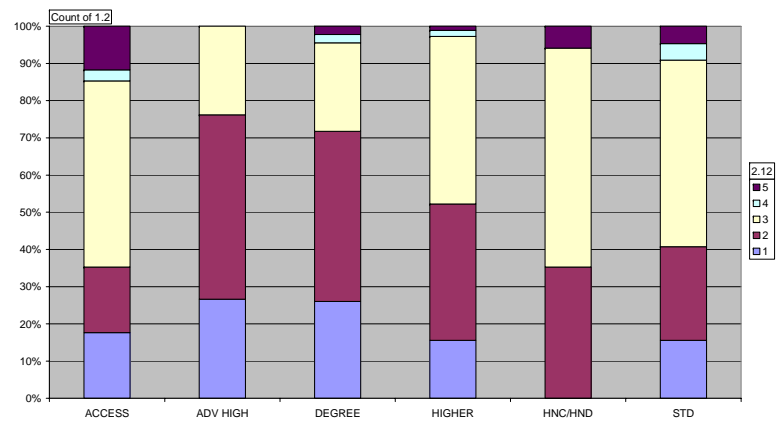
2.63 I had few or no other options

6.3 Differences in influencing factors with level



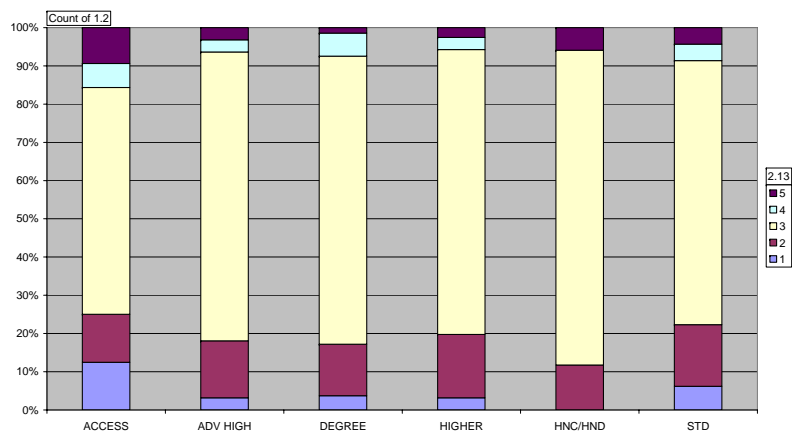
1.2

2.11 No-one, I've always liked it



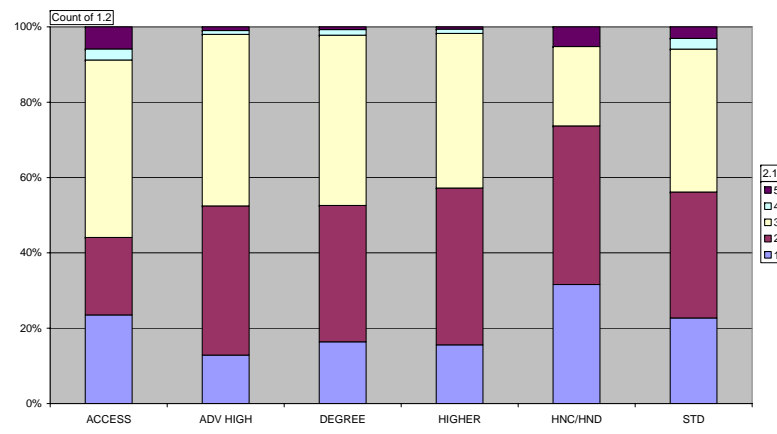
1.2

2.12 School teacher for subject



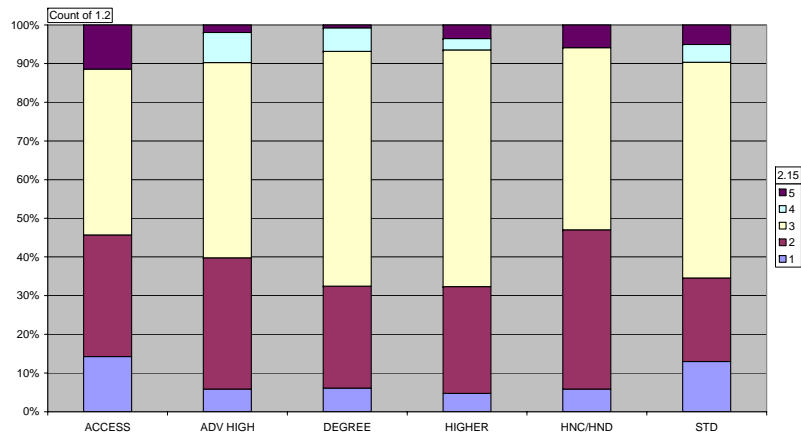
1.2

2.13 Guidance teacher

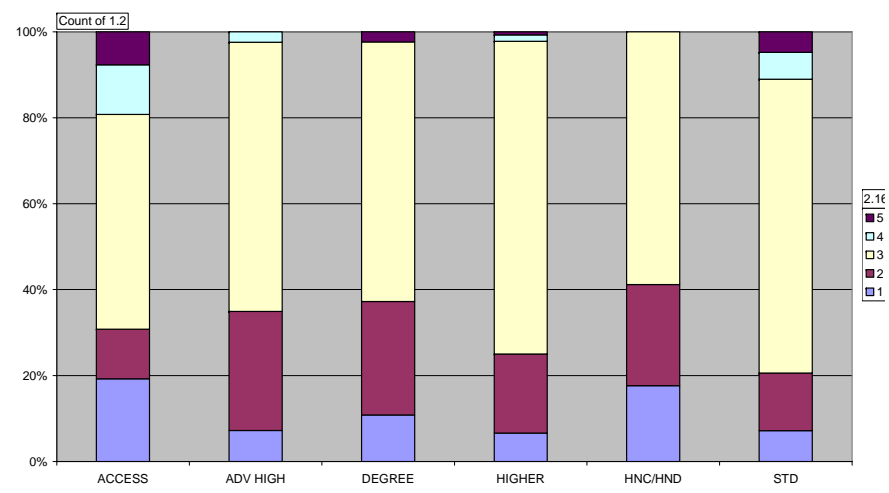


1.2

2.14 Parent(s) or relative(s)

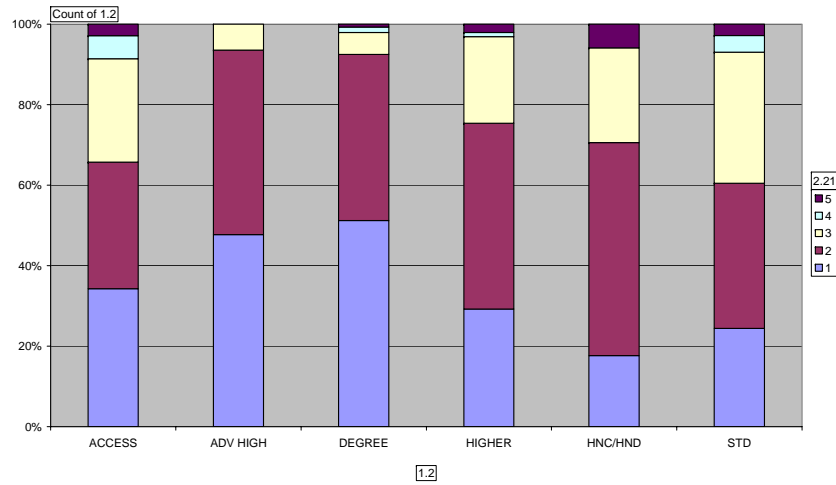


2.15 Friend(s) or colleague(s)

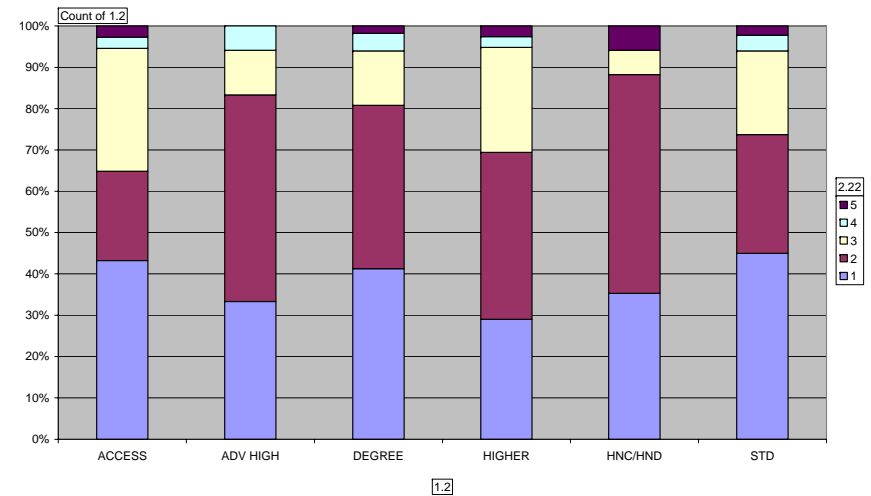


2.16 A worker in the subject area

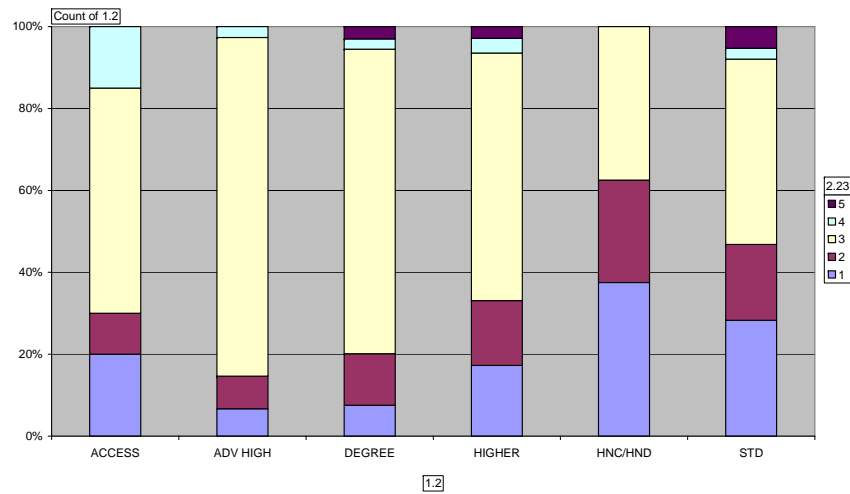
Level



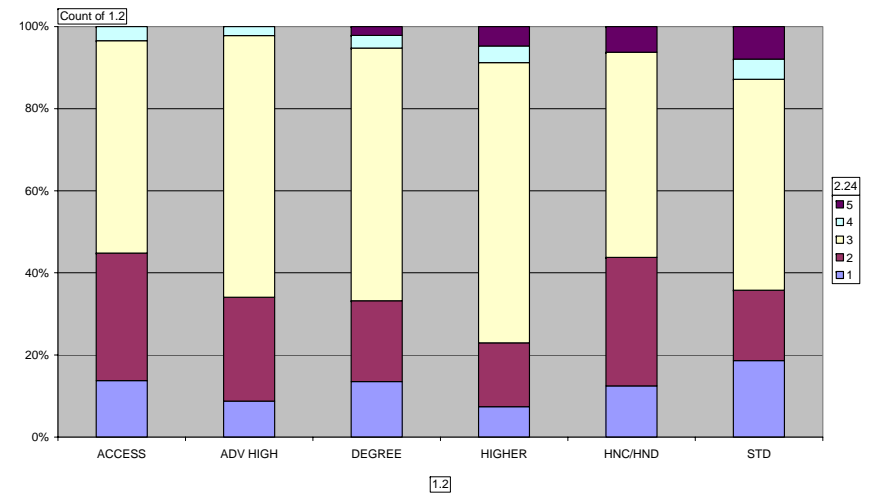
2.21 Learning about the subject theory in school



2.22 The practical work of the subject in school

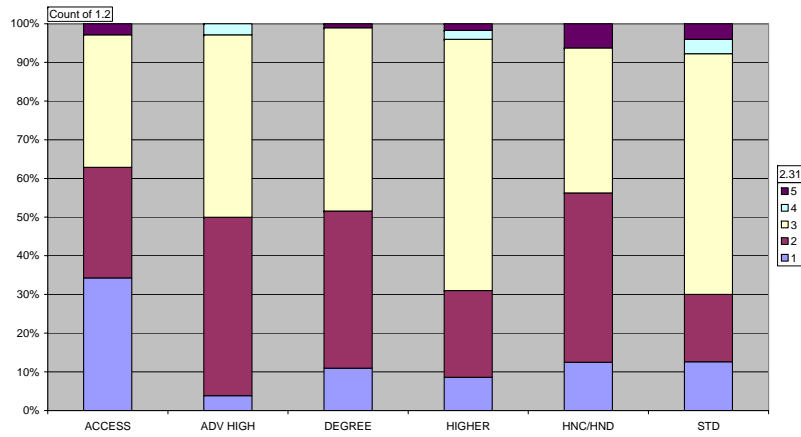


2.23 My job

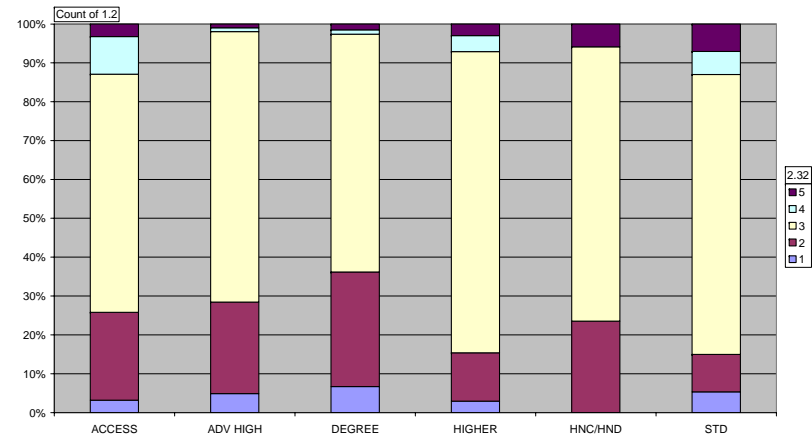


2.24 My hobby

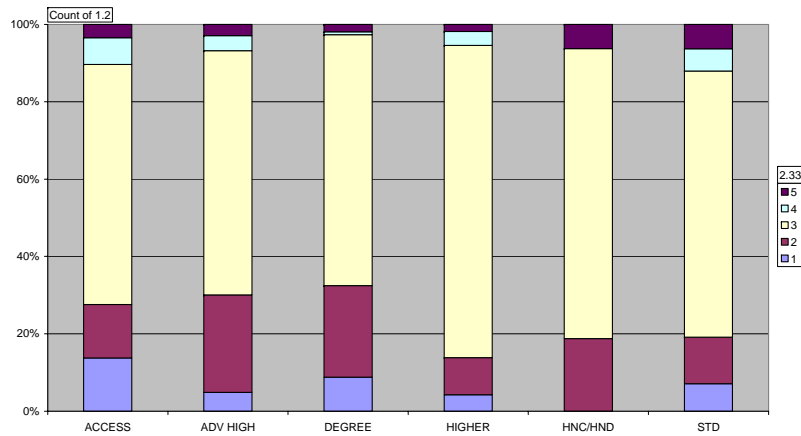
Level



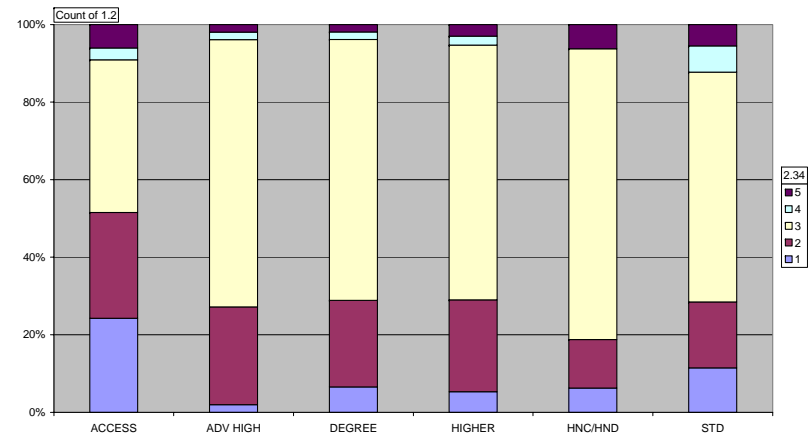
2.31 Websites on subject related topics



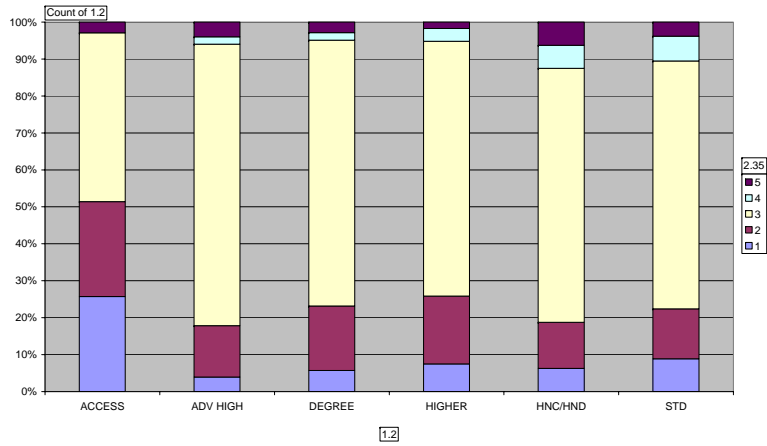
2.32 Newspapers



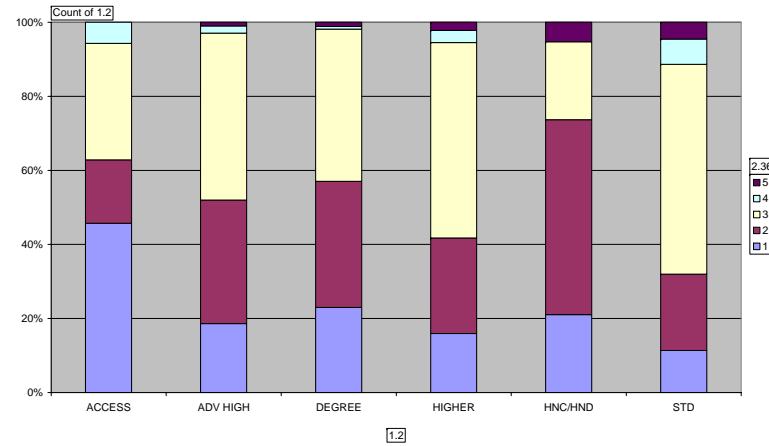
2.33 Magazines



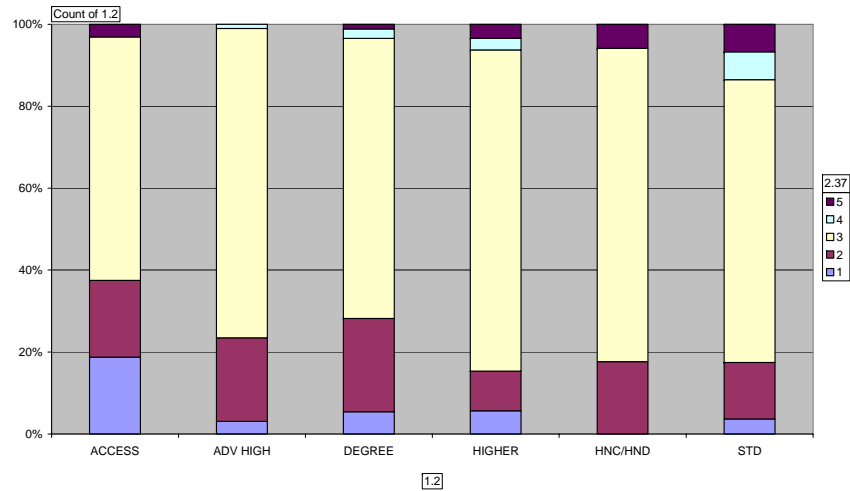
2.34 Films



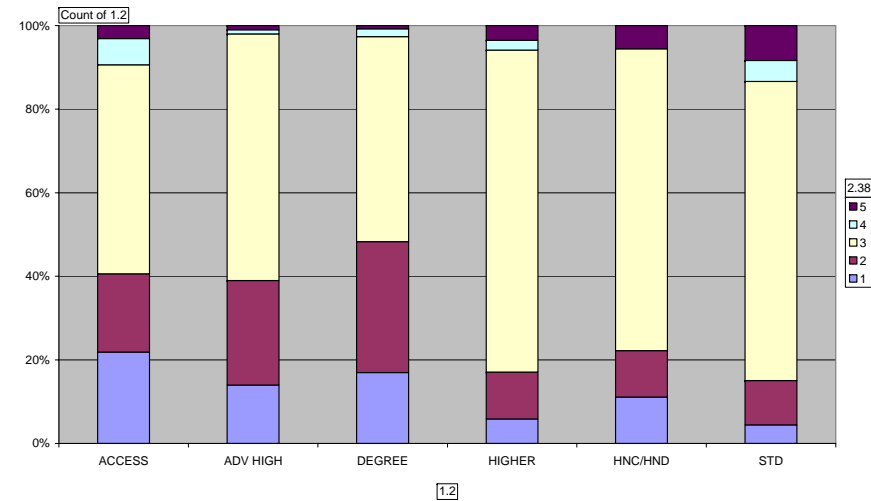
2.35 TV dramas



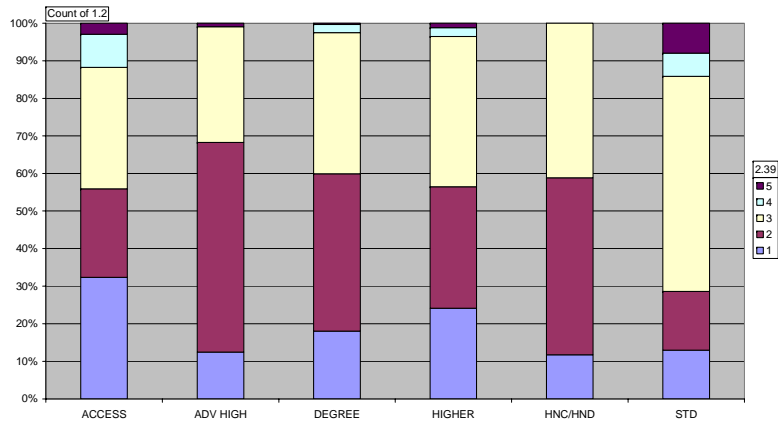
2.36 TV documentaries



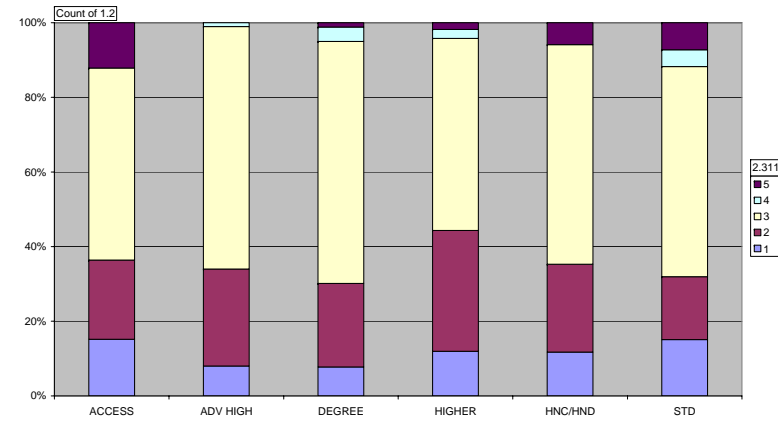
2.37 Fictional books



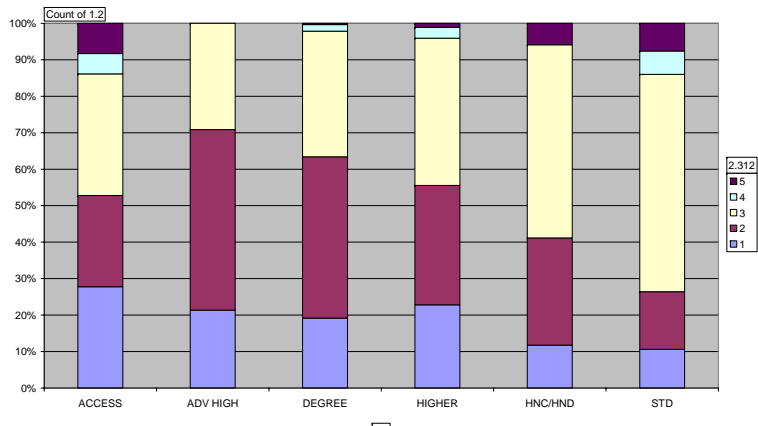
2.38 Non-fictional books



2.39 Online college/ university prospectus

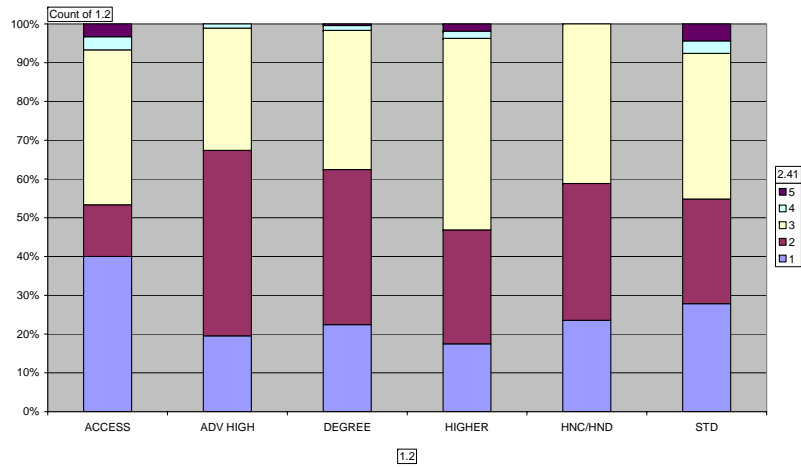


2.310 Paper college/ uni prospectus

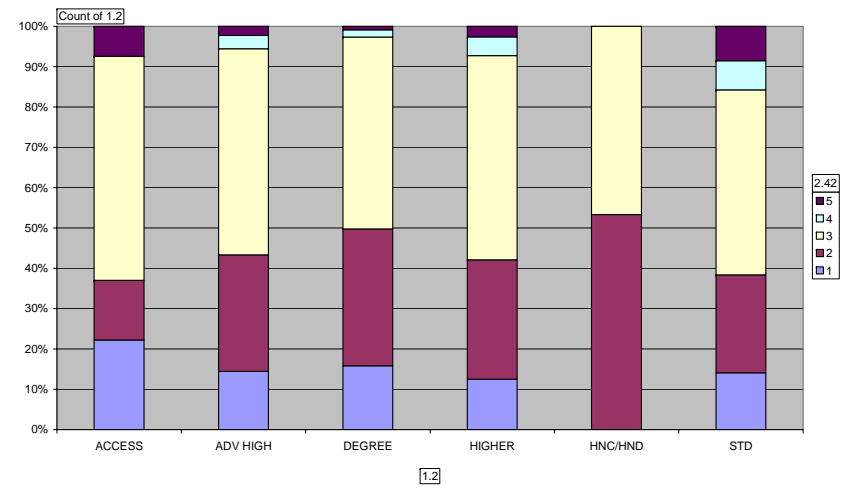


2.311 Adverts for college/ university

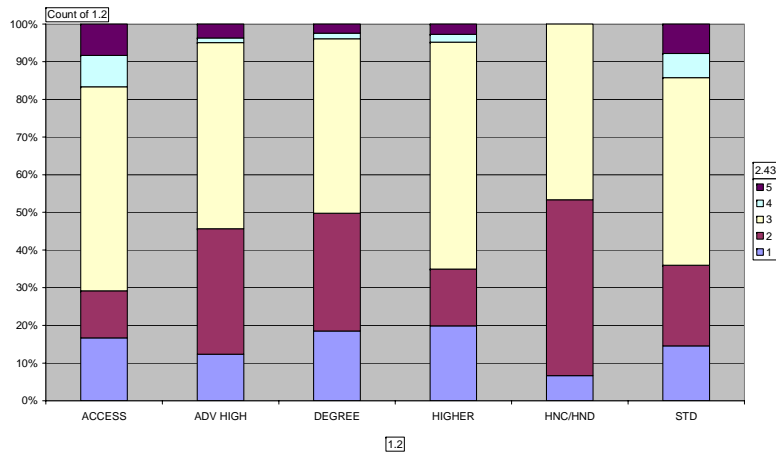
Level



2.41 I enjoyed an event that related to this subject

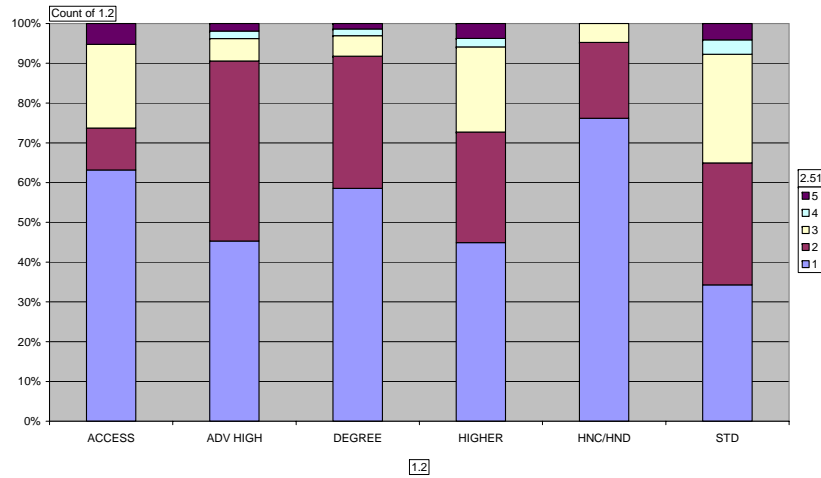


2.42 I enjoyed a trip to a museum or science centre

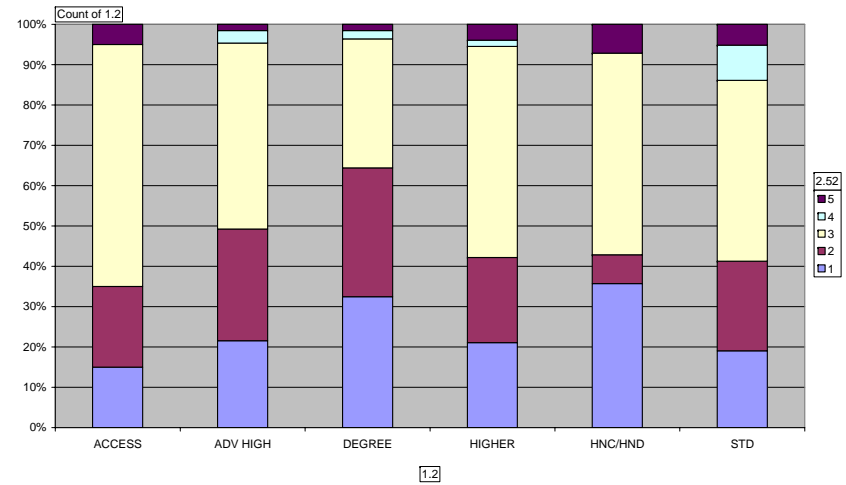


2.43 I enjoyed a study trip that involved this subject

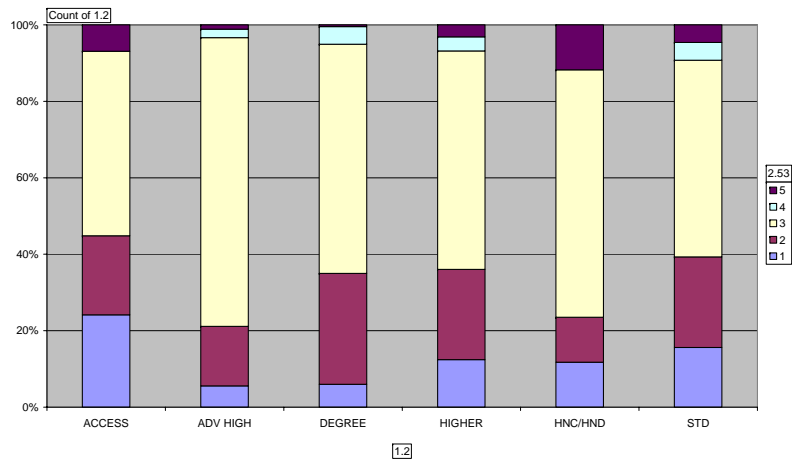
Level



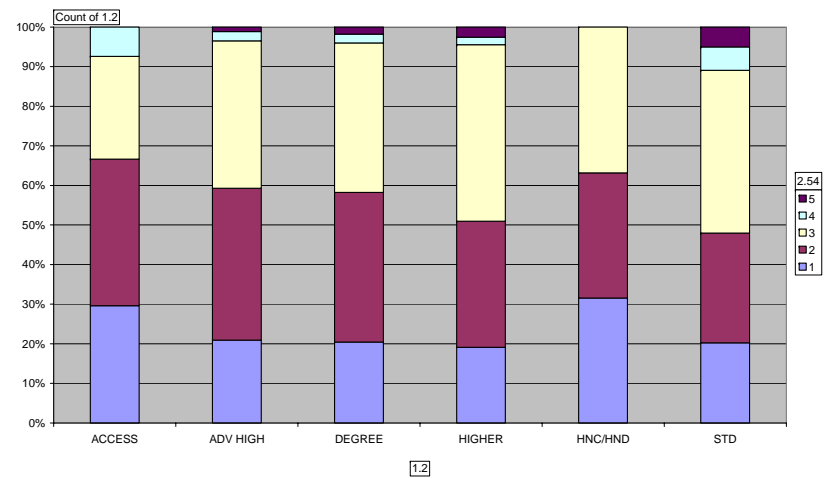
2.51 I intend to pursue a career in this subject area



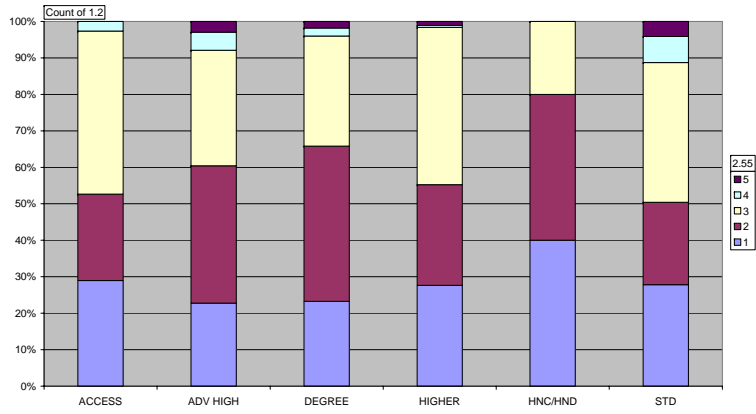
2.52 I enjoyed work experience involving this subject



2.53 Talk from guidance teacher/ careers officer

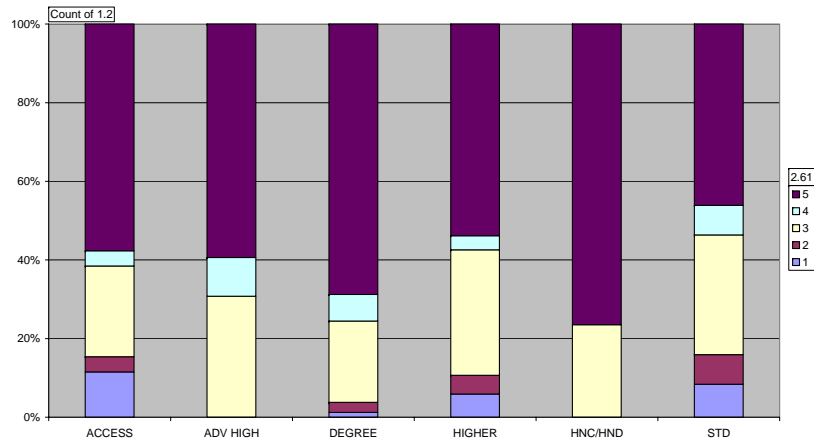


2.54 Talk from a person in a related job

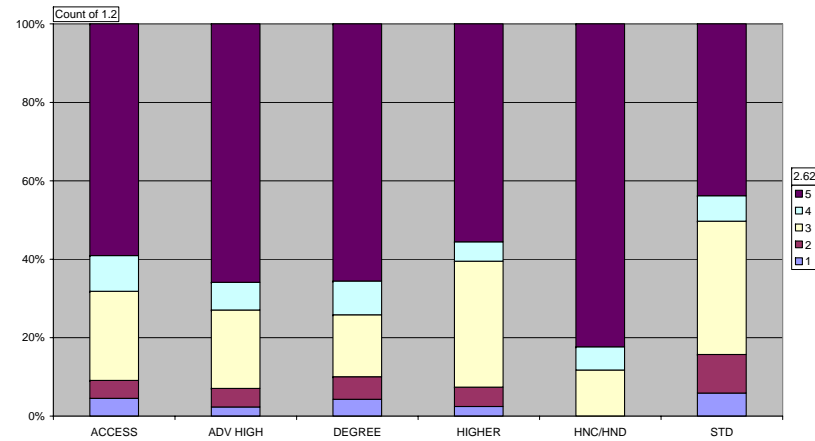


2.55 The good potential salary for working in this area

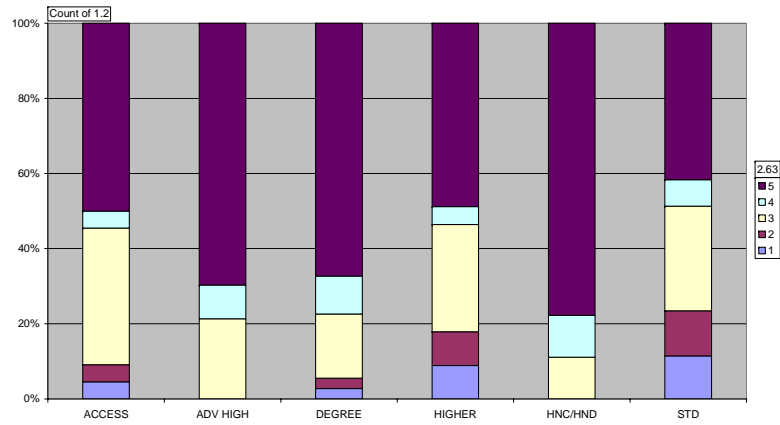
Level



2.61 My parents thought I should take but I'm not really interested

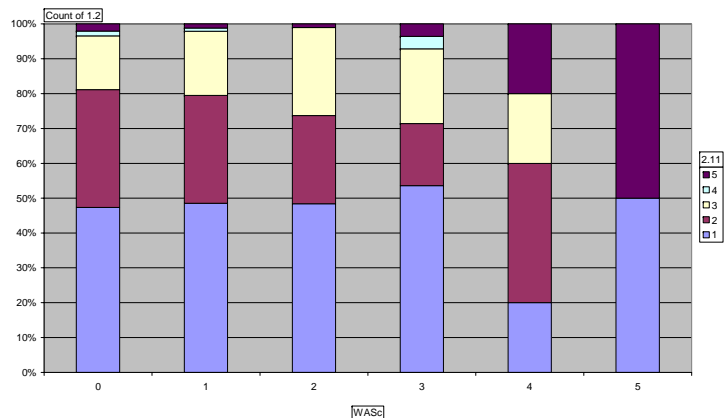


2.62 I didn't get the grades for my first choice

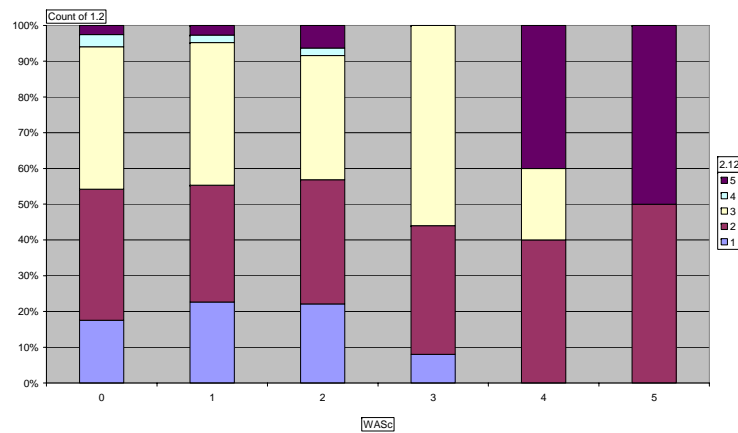


1.2
2.63 I had few or no other options

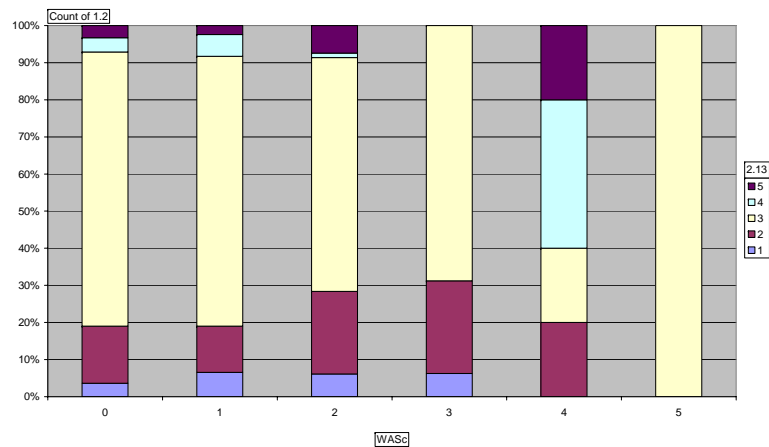
6.4 Differences in influencing factors with wider access score



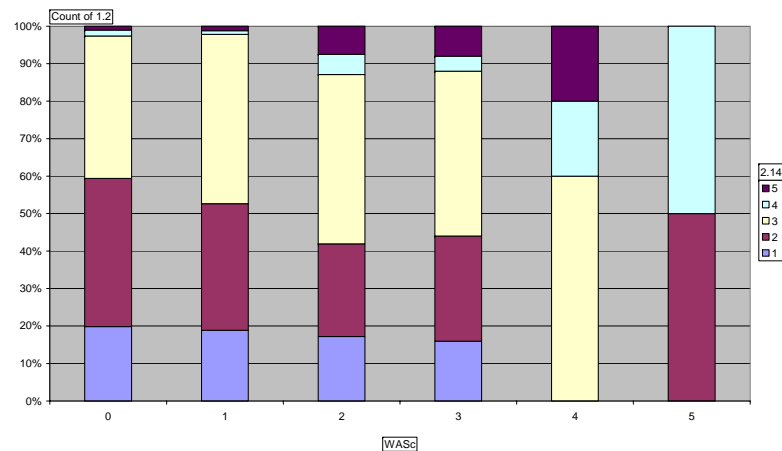
2.11 No-one, I've always liked it



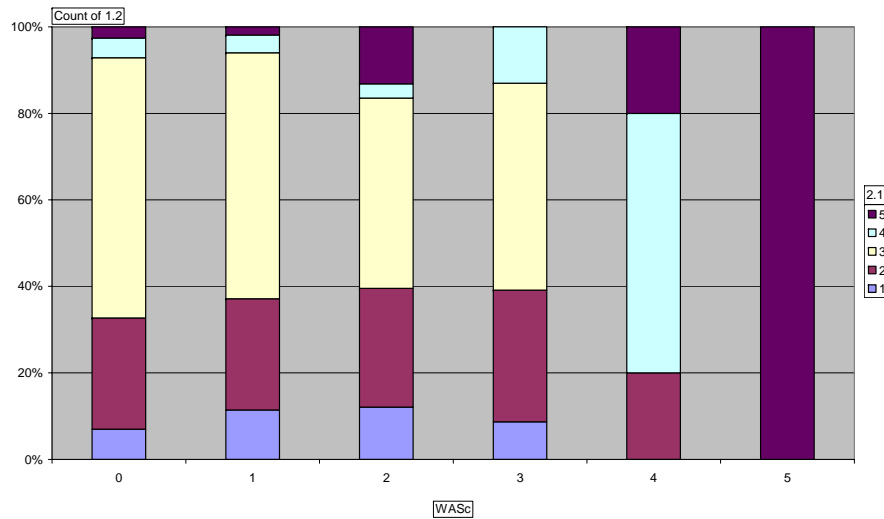
2.12 School teacher for subject



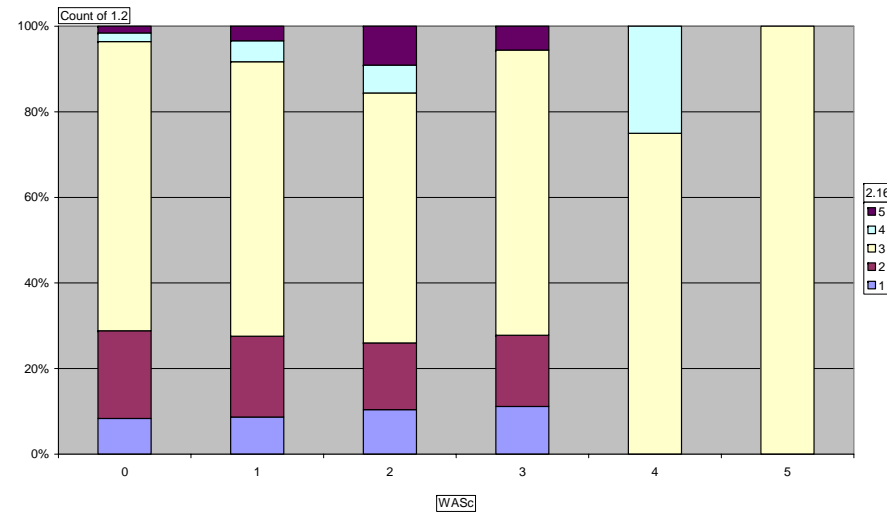
2.13 Guidance teacher



2.14 Parent(s) or relative(s)

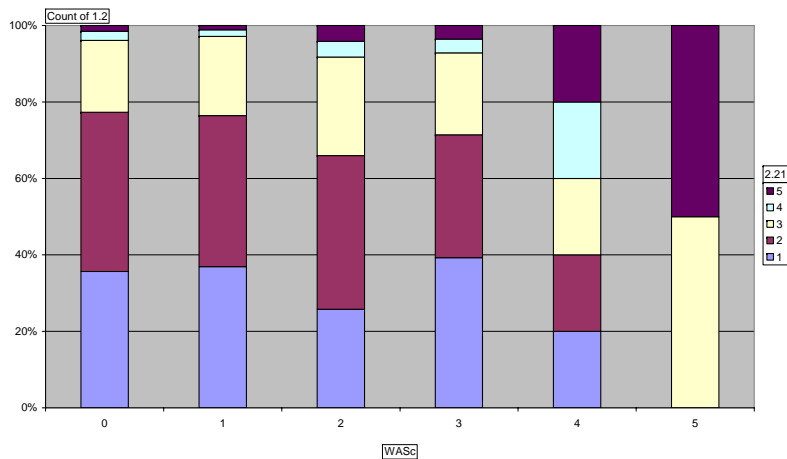


2.15 Friend(s) or colleague(s)

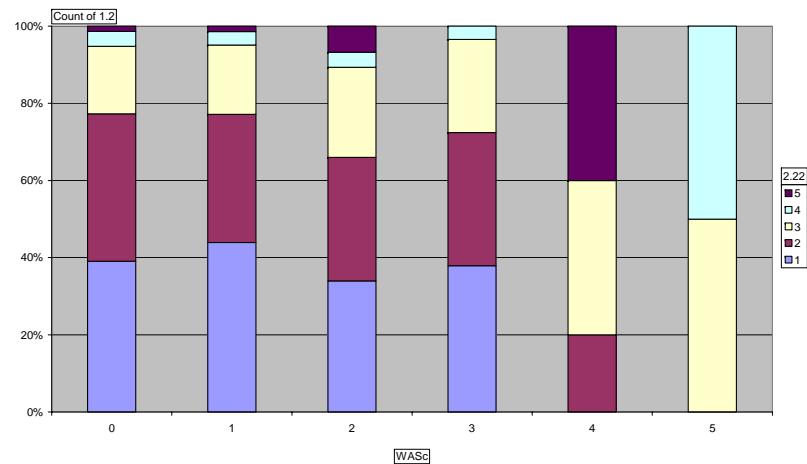


2.16 A worker in the subject area

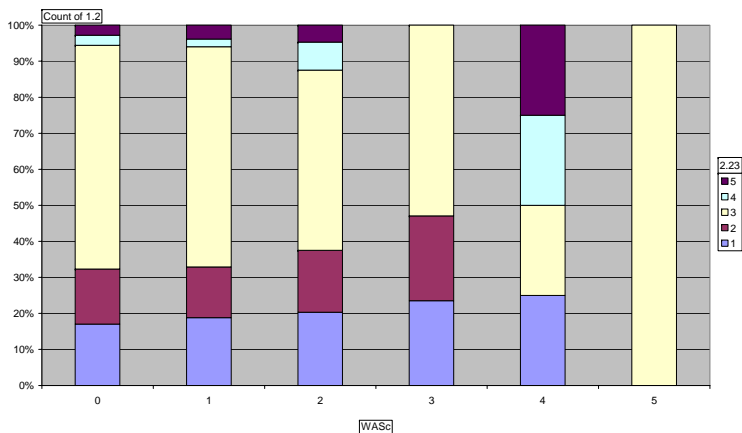
Wider Access Scores



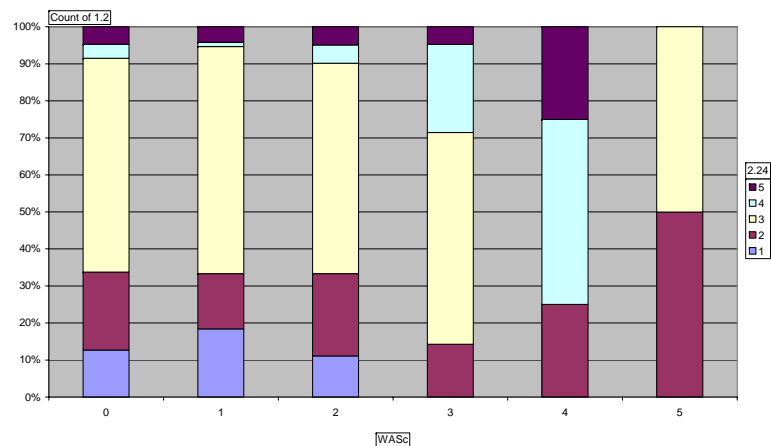
2.21 Learning about the subject theory in school



2.22 The practical work of the subject in school

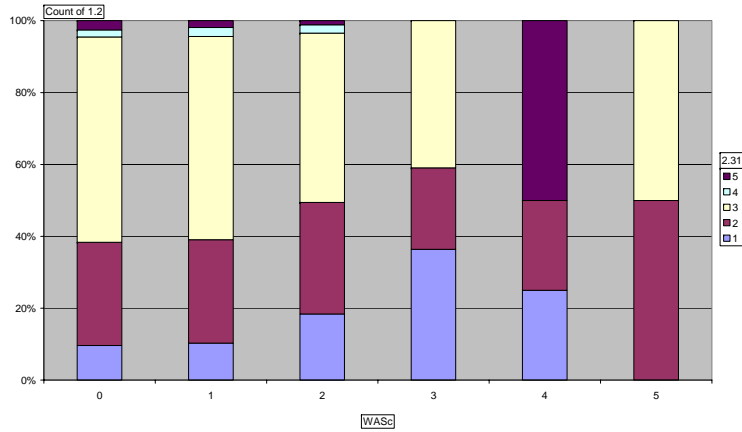


2.23 My job

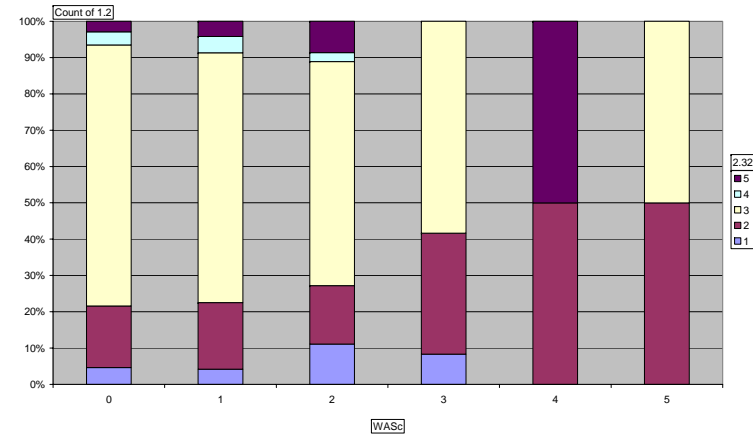


2.24 My hobby

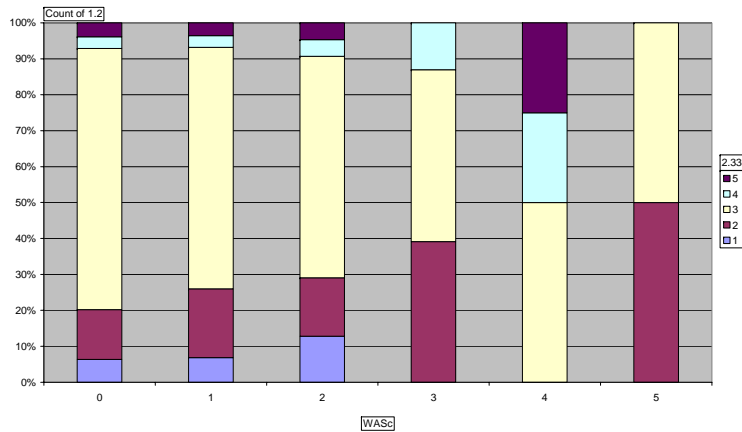
Wider Access Scores



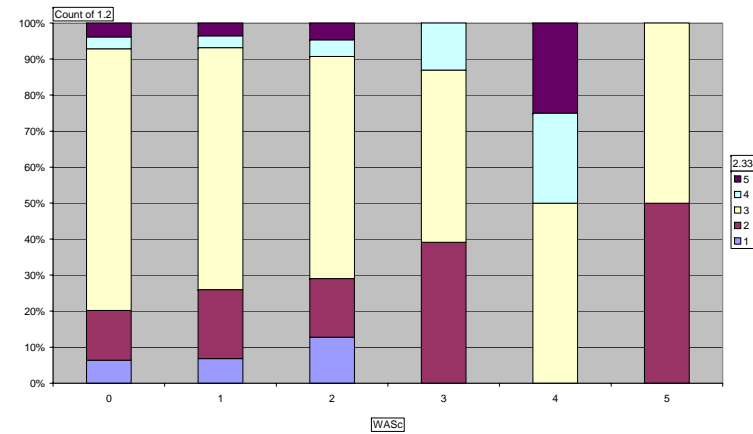
2.31 Websites on subject related topics



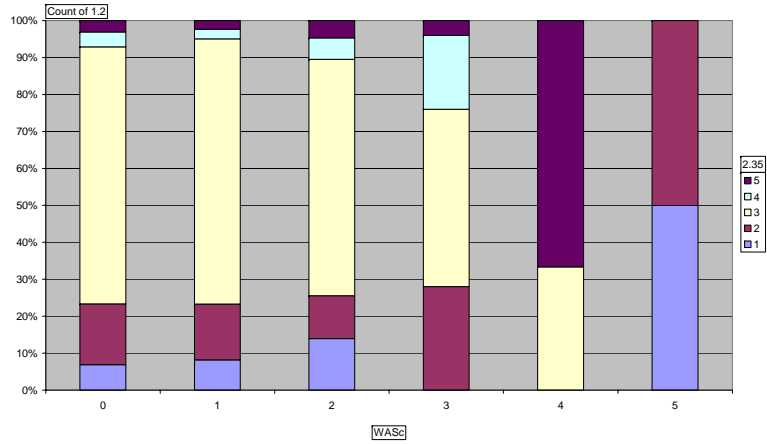
2.32 Newspapers



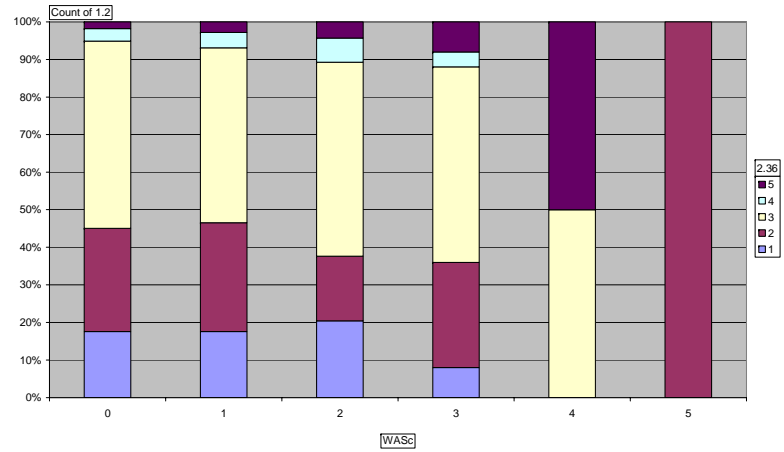
2.33 Magazines



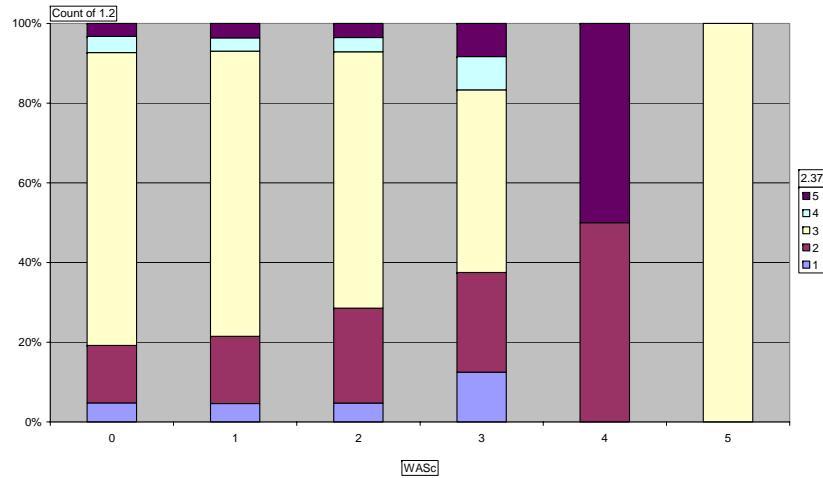
2.34 Films



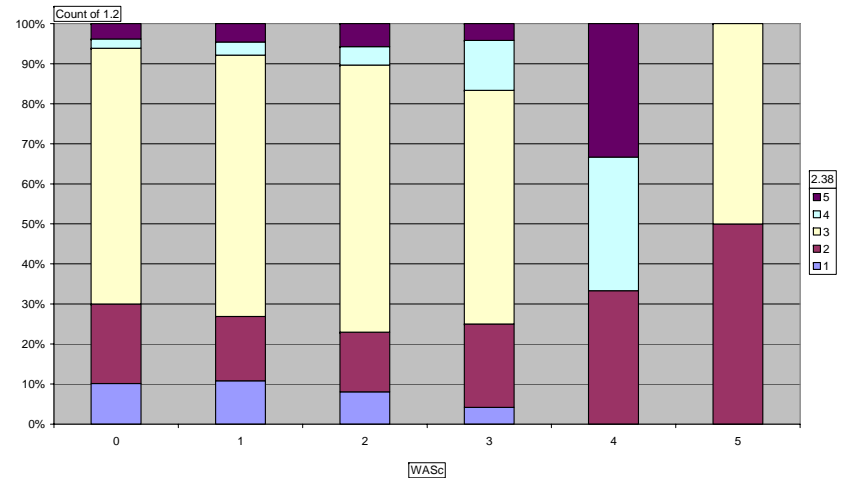
2.35 TV dramas



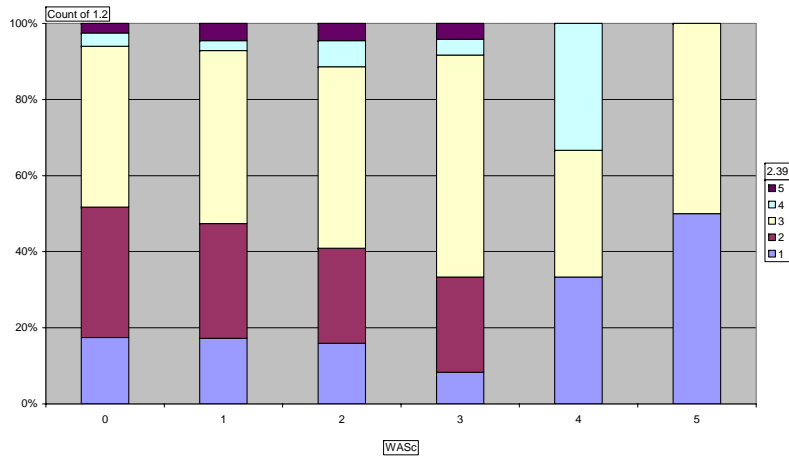
2.36 TV documentaries



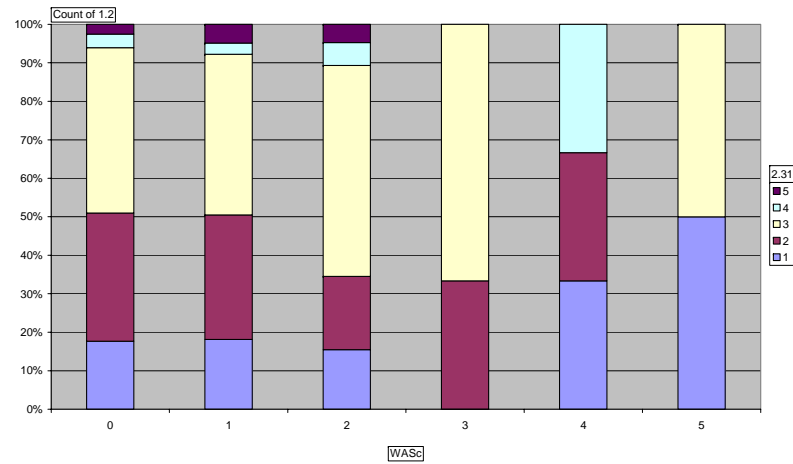
2.37 Fictional books



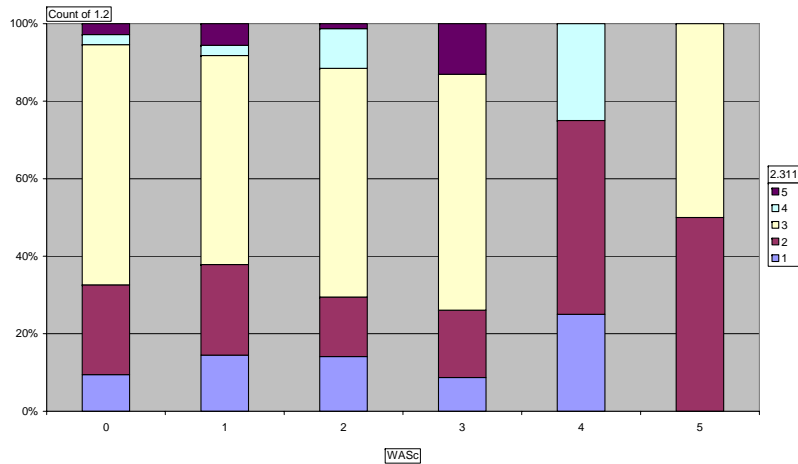
2.38 Non-fictional books



2.39 Online college/ university prospectus

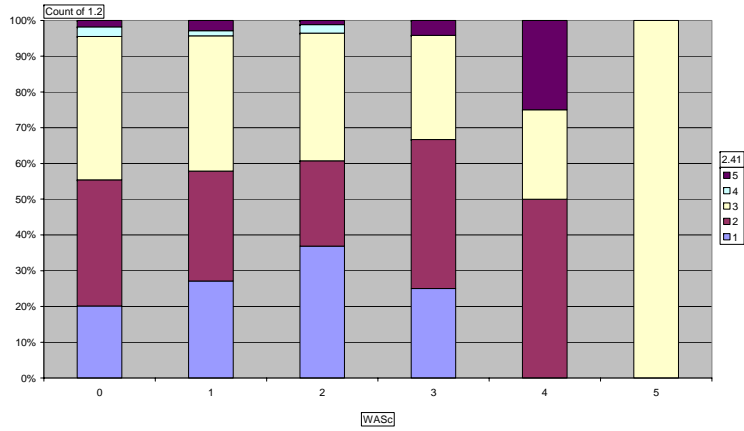


2.310 Paper college/ uni prospectus

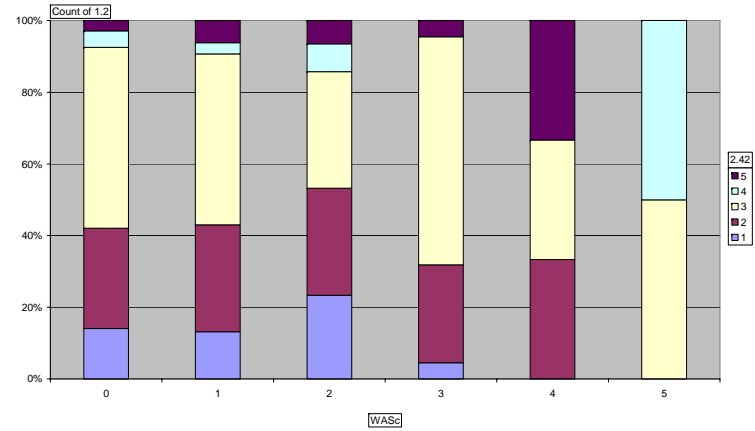


2.311 Adverts for college/ university

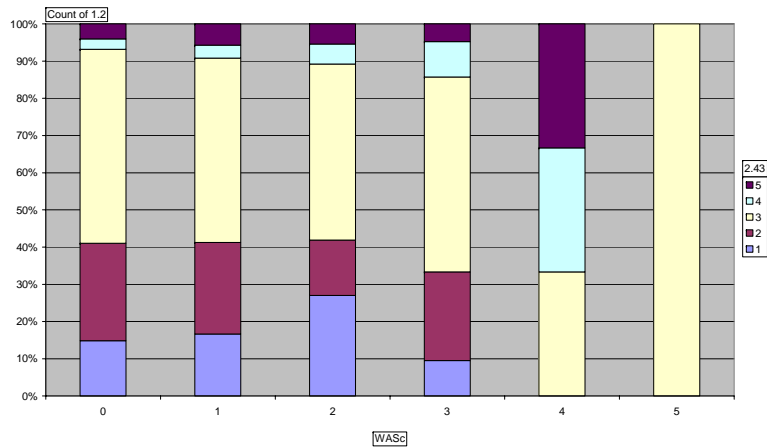
Wider Access Scores



2.41 I enjoyed an event that related to this subject

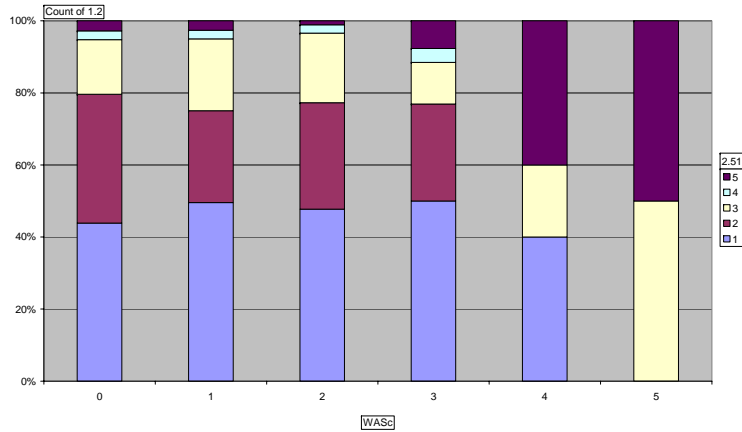


2.42 I enjoyed a trip to a museum or science centre

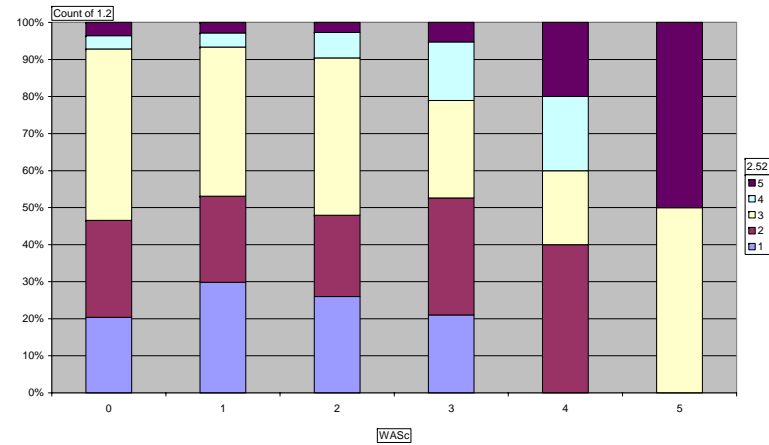


2.43 I enjoyed a study trip that involved this subject

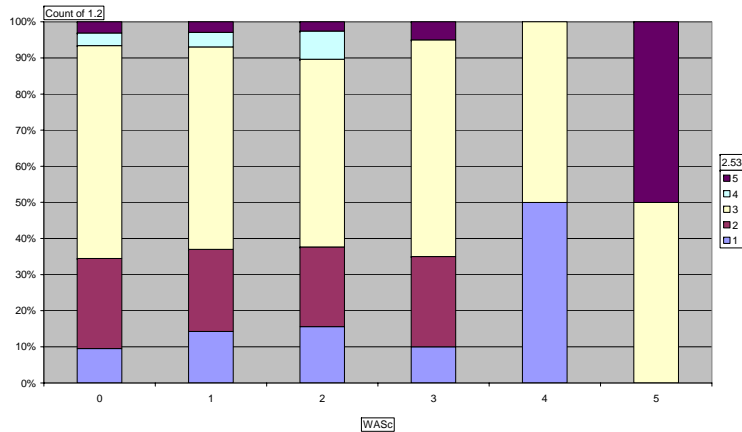
Wider Access Scores



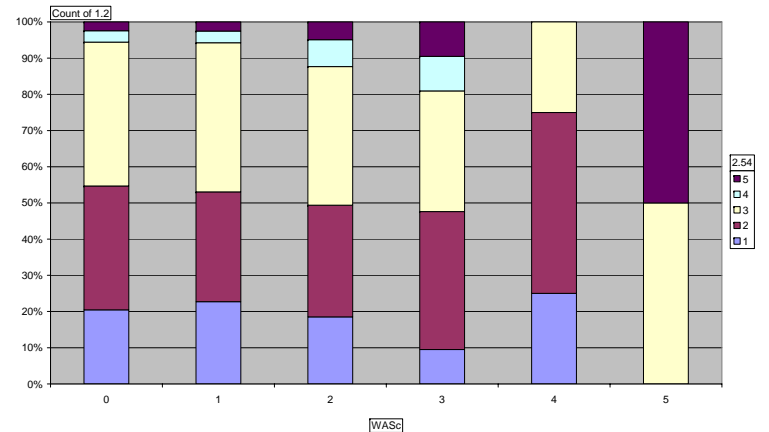
2.51 I intend to pursue a career in this subject area



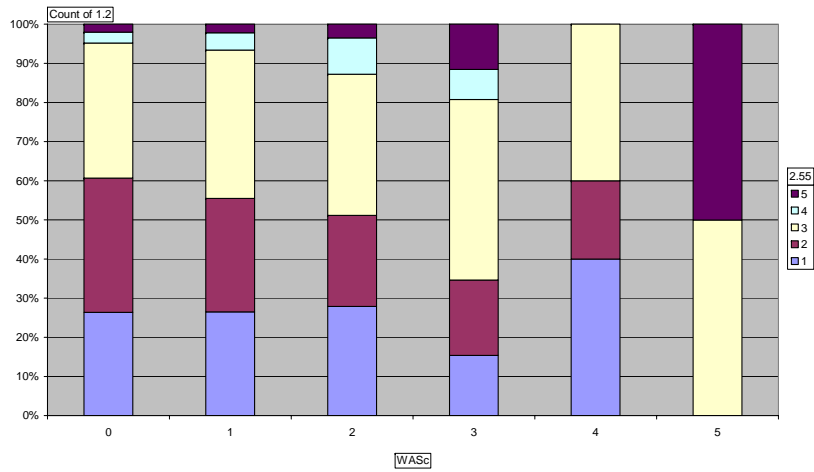
2.52 I enjoyed work experience involving this subject



2.53 Talk from guidance teacher/ careers officer

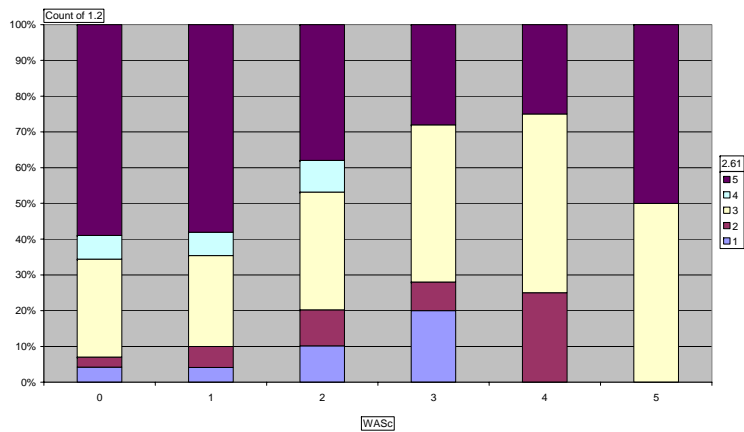


2.54 Talk from a person in a related job

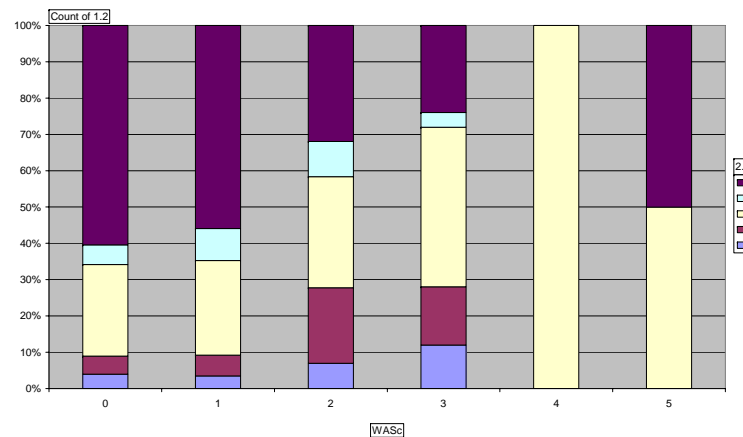


2.55 The good potential salary for working in this area

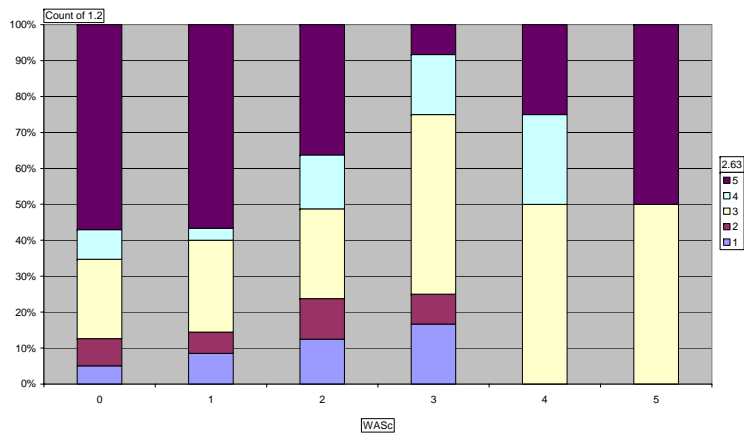
Wider Access Scores



2.61 My parents thought I should take but I'm not really interested



2.62 I didn't get the grades for my first choice



2.63 I had few or no other options

6.5 Testing for subgroup differences in strength of agreement

In this section, differences in responses from subgroups of the population are investigated. In particular differences amongst the respondents are tested for by:

Subject	Biology, Chemistry, Physics, Engineering, Maths, IT
Level	Standard Grade, Higher, Adv Higher, Access, HNC/D, Degree
Age group	14-16, 17-19, 20-22, 23-25, 26+
Gender	Male, female
Family member studied	Yes, no
Entitled to free school meals	Yes, no
English-speaking school	Yes, no
Registered disabled	Yes, no
English as first language	Yes, no
Had a gap year	Yes, no
Lower STEM course	Yes, no
Lacked confidence	Yes, no
To earn money	Yes, no
Time to travel	Yes, no
Career change	Yes, no
Disliked school	Yes, no
Staff development	Yes, no

The remaining questions asked respondents for their strength of agreement with a Likert statement, responses ranging from 'Strongly Agree' to 'Strongly disagree'. The tables in this section show the significance of the difference between respondents based on their response to the categories above. For conciseness and to aid interpretation, the results in this section are summarized as shown in the example below.

2.11	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
No-one, I've always liked it		DEGREE *	26+ *					N	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
No-one, I've always liked it	Y								

In this case there are some categories which produce significant differences between the responses to the statement 'No-one, I've always liked it'. The categories which produce significant differences are Level, Age, Disabled and gap Year. For the Level category, those who indicated 'higher are the ones who most strongly agree with the statement. The difference between responses is highly significant ($p < 0.01$), as indicated by the *. Similarly for the Age category, those 26 and over were more likely to agree with the statement and this was also highly significant. The Disabled category results suggest the non-disabled people were more likely to agree with the statement, as were those who had taken a gap year. Neither of these was highly significant ($p < 0.05$).

Who encouraged your interest in this subject?

2.11	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
No-one, I've always liked it		DEGREE *	26+ *					N	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
No-one, I've always liked it	Y								

2.12	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
School teacher for the subject	MATHS *	ADV HIGH *	17-19 *				Y *		
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
School teacher for the subject					Y *				

2.13	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
guidance teacher									
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
guidance teacher									

2.14	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Parent(s) Or relative(s)	MATHS *				Y *			N *	Y *
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Parent(s) Or relative(s)									

2.15	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Friend(s) or colleague(s)	ENGG						Y *		
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Friend(s) or colleague(s)									

2.16	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
A worker in this subject area		HNC/HND *	26+ *	M					
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
A worker in this subject area	Y *								

How much did each of the following encourage your choice?

2.21	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Learning about the subject theory at school	MATHS *	ADV HIGH *	17-19 *	F		N	Y		Y *
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Learning about the subject theory at school					Y	N	N		

2.22	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
The practical work of the subject in school	ENGG *							N *	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
The practical work of the subject in school		Y							

2.23	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
My job	ENGG	HNC/HND *	26+ *						
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
My job								Y *	

How much did the following media encourage your choice?

2.31	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Websites on subject-related topics	IT *	ACCESS *	26+ *						N *
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Websites on subject-related topics	Y *								

2.32	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Newspapers		DEGREE *	26+ *						N *
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Newspapers	Y *		Y						

2.33	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Magazines	PHYS *	DEGREE *	26+ *						N
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Magazines									

2.34	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Films			26+						
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Films	Y						N		

2.35	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
TV dramas	BIO *	ACCESS *	26+	F *					
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
TV dramas	Y								

2.36	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
TV documentaries	BIO *	ACCESS *	26+ *					N *	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
TV documentaries	Y *					Y		N *	

2.37	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
fictional books	BIO	ACCES S *	20-22 *					N	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
fictional books	Y *					Y			

2.38	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Non-fictional books	BIO *	DEGREE *	26+ *			N *			
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Non-fictional books	Y *								

2.39	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Online college/ university prospectus	MATHS *	ADV HIGH *	23-25 *			N *			
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Online college/ university prospectus						Y			

2.310	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Paper college/ university prospectus	MATHS *	ADV HIGH *	26+ *	F		N *	Y	N	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Paper college/ university prospectus						Y			

2.311	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Adverts for college/ university									
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Adverts for college/ university									

Did a particular event/visit encourage your choice?

2.41	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
I enjoyed an event that related to this subject	ENGG *		26+						
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
I enjoyed an event that related to this subject									

2.42	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
I enjoyed a trip to a museum or science centre	CHEM *	DEGREE *	26+ *					N *	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
I enjoyed a trip to a museum or science centre									

2.43	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
I enjoyed a study trip that involved this subject	ENGG *	DEGREE *	26+ *					N	Y *
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
I enjoyed a study trip that involved this subject	Y								

Did the thought of a career in this subject encourage your choice?

2.51	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
I intend to pursue a career in this subject area	ENGG *	HNC/HND *	26+ *					N	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
I intend to pursue a career in this subject area	Y *				N *	Y *			

2.52	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
I enjoyed work experience involving this subject	ENGG *	DEGREE *	26+ *				Y *		
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
I enjoyed work experience involving this subject				N					

2.53	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Talk from guidance teacher/ careers officer									
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Talk from guidance teacher/ careers officer									

2.54	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
Talk from a person in a related job	ENGG *	HNC/HND	26+ *						Y
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
Talk from a person in a related job									

2.55	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
The good potential salary for working in this area	ENGG *	HNC/HND		M *		N	Y *	N	
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
The good potential salary for working in this area									

Did any of the following affect your choice?

2.61	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
My parents/ but I'm not really interested	IT	STD *	14-16 *				N *		N *
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
My parents/ but I'm not really interested									

2.62	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
I didn't get the grades for my first		STD *	26+ *			Y	N *	Y	N *
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
I didn't get the grades for my first									

2.63	Subject	Level	Age	Sex	Relative studied	Free meals	Eng school	Disabled	Eng. lang.
I had few or no other options		STD *	14-16 *			Y *	N *	Y	N *
	Gap year	Lower level	Lacked confidence	Earn money	Travel	Career change	Disliked school	Staff development	
I had few or no other options	N *								

6.6 Factor Analysis

Factor analysis is a statistical technique used to reduce data by explaining them in terms of a set of fewer variables called factors. The observed variables are modelled as linear combinations of the factors, plus 'error' terms. In this table factor loadings less than 0.5 have been set to 0, this makes the more tightly linked items relating to each factor more obvious.

Each factor identifies a group of statements which have related responses and may be described as 'one' concept. For example the first five responses are identified with Factor1 and by examining the statements its apparent that they relate to being encouraged by 'visual' media and books. So people who responded positively to one of these media tended to respond positively to others also associated with this factor.

With the second factor we can see that paper and online prospectuses are similarly associated with each other, but not with the first factor.

Sorted Rotated Factor Loadings and Communalities

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Factor7	Factor8	Factor9	Factor10
2.35	0.709	0	0	0	0	0	0	0	0	0
2.36	0.69	0	0	0	0	0	0	0	0	0
2.37	0.679	0	0	0	0	0	0	0	0	0
2.38	0.667	0	0	0	0	0	0	0	0	0
2.34	0.663	0	0	0	0	0	0	0	0	0
2.31	0	0.869	0	0	0	0	0	0	0	0
2.39	0	0.822	0	0	0	0	0	0	0	0
2.311	0	0.797	0	0	0	0	0	0	0	0
2.62	0	0	0.889	0	0	0	0	0	0	0
2.61	0	0	0.867	0	0	0	0	0	0	0
2.63	0	0	0.838	0	0	0	0	0	0	0
2.54	0	0	0	-0.731	0	0	0	0	0	0
2.16	0	0	0	-0.65	0	0	0	0	0	0
2.55	0	0	0	-0.638	0	0	0	0	0	0
2.11	0	0	0	0	0.744	0	0	0	0	0
2.22	0	0	0	0	0.662	0	0	0	0	0
2.21	0	0	0	0	0.636	0	0	0	0	0
2.43	0	0	0	0	0	-0.796	0	0	0	0
2.41	0	0	0	0	0	-0.718	0	0	0	0
2.42	0	0	0	0	0	-0.678	0	0	0	0
2.32	0	0	0	0	0	0	0.802	0	0	0
2.31	0	0	0	0	0	0	0.656	0	0	0
2.33	0	0	0	0	0	0	0.582	0	0	0
2.23	0	0	0	0	0	0	0	0.779	0	0
2.24	0	0	0	0	0	0	0	0.664	0	0
2.12	0	0	0	0	0	0	0	0	0.689	0
2.13	0	0	0	0	0	0	0	0	0.62	0
2.15	0	0	0	0	0	0	0	0	0	-0.745
2.14	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0
2.51	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0
Variance	2.9475	2.7421	2.4589	2.207	2.1693	2.1092	1.9909	1.8132	1.3899	1.2915
%	0.092	0.086	0.077	0.069	0.068	0.066	0.062	0.057	0.043	0.04

Factor 1 relates to TV drama, TV documentaries, fiction books, non-fiction books and films.

Factor 2 relates to paper university/ college prospectuses, online prospectuses and adverts for college/ university

Factor 3 relates to section 2.6 of the questionnaire.

Factor 4 relates to people in related jobs, workers in the subject area and the potential salary

Factor 5 relates to self-motivation, the practical work and the theory of the subject in school.

Factor 6 relates to section 2.4 of the questionnaire.

Factor 7 relates to newspapers, websites and magazines

Factor 8 relates to job and hobby.

6.7 Overall Percentages

The tables in this section list the various possible responses to the statement and indicate the percentage of respondents who selected that item.

1.1	Percent	1.2	Percent	2.11	Percent	2.12	Percent
BIO	28.53	STD	41.87	1	47.96	1	19.23
CHEM	19.68	HIGHER	17.62	2	31.62	2	35.31
		ADV					
PHYS	16.1	HIGH	9.45	3	17.38	3	39.55
ENGG	8.35	ACCESS	3.4	4	1.14	4	2.76
MATHS	13.8	HNC/HND	1.79	5	1.9	5	3.16
IT	13.54	DEGREE	25.87				
2.13	Percent	2.14	Percent	2.15	Percent	2.16	Percent
1	4.83	1	19.1	1	8.84	1	8.73
2	15.17	2	36.04	2	25.91	2	19.19
3	72.25	3	40.94	3	56.81	3	65.56
4	4.38	4	1.96	4	4.88	4	3.57
5	3.37	5	1.96	5	3.56	5	2.95
2.21	Percent	2.22	Percent	2.23	Percent	2.24	Percent
1	35.18	1	39.8	1	18.02	1	14
2	40.44	2	35.92	2	15.08	2	19.22
3	20.13	3	18.47	3	60.47	3	58.36
4	2.4	4	3.79	4	3.07	4	3.8
5	1.85	5	2.03	5	3.35	5	4.63
2.31	Percent	2.32	Percent	2.33	Percent	2.34	Percent
1	11.32	1	5.08	1	6.87	1	8.37
2	28.72	2	17.99	2	16.6	2	20.76
3	55.51	3	69.31	3	69.03	3	63.22
4	2.12	4	3.7	4	3.7	4	3.93
5	2.33	5	3.92	5	3.81	5	3.72

2.35	Percent	2.36	Percent	2.37	Percent	2.38	Percent
1	7.81	1	17.47	1	4.89	1	9.92
2	15.95	2	27.17	2	16.37	2	18.57
3	68.95	3	48.89	3	71.2	3	64.03
4	4.12	4	3.84	4	3.83	4	3.16
5	3.17	5	2.63	5	3.72	5	4.32
2.39	Percent	2.31	Percent	2.311	Percent	2.41	Percent
1	17.14	1	17.31	1	11.62	1	23.96
2	31.64	2	31.62	2	22.48	2	32.73
3	44.23	3	44.12	3	58.77	3	38.92
4	3.6	4	3.53	4	3.29	4	2.14
5	3.39	5	3.42	5	3.84	5	2.25
2.42	Percent	2.43	Percent	2.51	Percent	2.52	Percent
1	14.39	1	16.53	1	46.14	1	23.74
2	28.66	2	24.34	2	31.27	2	25.07
3	48.17	3	50.79	3	17.08	3	43.18
4	4.39	4	3.57	4	2.51	4	4.45
5	4.39	5	4.76	5	2.99	5	3.56
2.53	Percent	2.54	Percent	2.55	Percent	2.61	Percent
1	11.7	1	20.76	1	26.27	1	5.11
2	23.75	2	32.7	2	31.16	2	4.78
3	57.47	3	39.86	3	36.05	3	27.89
4	3.94	4	3.7	4	3.97	4	6.56
5	3.13	5	2.98	5	2.55	5	55.67
2.62	Percent	2.63	Percent	3.1	Percent	3.2	Percent
1	4.26	1	7.13	14-16	52.14	M	48.58
2	7.06	2	7.48	17-19	37.56	F	51.42
3	26.67	3	24.42	20-22	5.4		
4	6.94	4	7.59	23-25	1.54		
5	55.05	5	53.39	26+	3.34		
3.31	Percent	3.32	Percent	3.33	Percent	3.34	Percent
Y	73.32	Y	16.78	Y	91.12	Y	4.31
N	26.68	N	83.22	N	8.88	N	95.69
3.35	Percent	3.4	Percent	3.51	Percent	3.52	Percent
Y	92.08	Y	10.26	Y	7.44	Y	7.69
N	7.92	N	89.74	N	92.56	N	92.31
3.53	Percent	3.54	Percent	3.55	Percent	3.56	Percent
Y	41.38	Y	37.29	Y	37.93	Y	22.41
N	58.62	N	62.71	N	62.07	N	77.59
3.57	Percent						
Y	7.69						
N	92.31						

6.8 Testing for Agreement

Each statement from 2.11 to 2.63 was tested regarding how likely a respondent was to agree with the statement. The responses were scored 1-5 corresponding to the responses 'Strongly Agree' to 'Strongly Disagree'.

The actual responses were compared to a mu value of 3, which would indicate no preference either way. In each case there was a highly significant ($p < 0.01$) tendency to agree (29 cases) or disagree (last three cases). Note that this gives 95% confidence intervals which exclude the value of 3.

All Levels included :

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	1053	1.77398	0.90531	0.02790	(1.71924, 1.82872)	-43.95	0.000
2.12	1014	2.35306	0.92652	0.02910	(2.29596, 2.41015)	-22.23	0.000
2.13	890	2.86292	0.71090	0.02383	(2.81615, 2.90969)	-5.75	0.000
2.14	1021	2.31636	0.86931	0.02721	(2.26297, 2.36974)	-25.13	0.000
2.15	984	2.68394	0.83946	0.02676	(2.63143, 2.73646)	-11.81	0.000
2.16	813	2.72817	0.78856	0.02766	(2.67388, 2.78245)	-9.83	0.000
2.21	1083	1.95291	0.90214	0.02741	(1.89912, 2.00670)	-38.20	0.000
2.22	1083	1.92336	0.95492	0.02902	(1.86643, 1.98030)	-37.10	0.000
2.23	716	2.58659	0.93092	0.03479	(2.51829, 2.65490)	-11.88	0.000
2.24	843	2.65836	0.92703	0.03193	(2.59569, 2.72103)	-10.70	0.000
2.31	989	2.55410	0.81008	0.02576	(2.50355, 2.60464)	-17.31	0.000
2.32	945	2.83386	0.74142	0.02412	(2.78653, 2.88119)	-6.89	0.000
2.33	946	2.80973	0.77100	0.02507	(2.76053, 2.85892)	-7.59	0.000
2.34	968	2.73864	0.81409	0.02617	(2.68729, 2.78998)	-9.99	0.000
2.35	947	2.78881	0.77197	0.02509	(2.73958, 2.83804)	-8.42	0.000
2.36	990	2.46970	0.91311	0.02902	(2.41275, 2.52665)	-18.27	0.000
2.37	941	2.85122	0.72433	0.02361	(2.80488, 2.89756)	-6.30	0.000
2.38	948	2.73418	0.84677	0.02750	(2.68021, 2.78815)	-9.67	0.000
2.39	945	2.44444	0.93049	0.03027	(2.38504, 2.50385)	-18.35	0.000
2.310	936	2.44124	0.93235	0.03047	(2.38143, 2.50105)	-18.34	0.000
2.311	912	2.65241	0.86954	0.02879	(2.59590, 2.70892)	-12.07	0.000
2.41	889	2.25984	0.92206	0.03092	(2.19915, 2.32054)	-23.93	0.000
2.42	820	2.55732	0.94171	0.03289	(2.49277, 2.62187)	-13.46	0.000
2.43	756	2.55688	0.96738	0.03518	(2.48781, 2.62595)	-12.59	0.000
2.51	1036	1.84942	0.99005	0.03076	(1.78906, 1.90978)	-37.41	0.000
2.52	674	2.39021	1.00842	0.03884	(2.31394, 2.46648)	-15.70	0.000
2.53	863	2.63036	0.85699	0.02917	(2.57310, 2.68762)	-12.67	0.000
2.54	838	2.35442	0.94770	0.03274	(2.29016, 2.41867)	-19.72	0.000
2.55	982	2.25356	0.97359	0.03107	(2.19260, 2.31453)	-24.03	0.000
2.61	900	4.02889	1.21962	0.04065	(3.94910, 4.10868)	25.31	0.000
2.62	821	4.01462	1.21867	0.04253	(3.93113, 4.09810)	23.86	0.000
2.63	856	3.92640	1.30960	0.04476	(3.83855, 4.01426)	20.70	0.000

Results for: Subset of Data where Level = "Degree" :

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	284	1.62324	0.82942	0.04922	(1.52636, 1.72012)	-27.97	0.000
2.12	269	2.08922	0.88490	0.05395	(1.98299, 2.19545)	-16.88	0.000
2.13	215	2.87907	0.62224	0.04244	(2.79542, 2.96272)	-2.85	0.005
2.14	268	2.33955	0.79347	0.04847	(2.24412, 2.43498)	-13.63	0.000
2.15	262	2.69084	0.71105	0.04393	(2.60434, 2.77734)	-7.04	0.000
2.16	212	2.56604	0.77910	0.05351	(2.46056, 2.67152)	-8.11	0.000
2.21	293	1.59044	0.71876	0.04199	(1.50780, 1.67309)	-33.57	0.000
2.22	281	1.85765	0.92641	0.05527	(1.74886, 1.96644)	-20.67	0.000
2.23	199	2.80905	0.73424	0.05205	(2.70640, 2.91169)	-3.67	0.000
2.24	229	2.60699	0.83935	0.05547	(2.49770, 2.71628)	-7.09	0.000
2.31	283	2.39576	0.72365	0.04302	(2.31109, 2.48043)	-14.05	0.000
2.32	268	2.61194	0.69681	0.04256	(2.52814, 2.69575)	-9.12	0.000
2.33	262	2.63359	0.73455	0.04538	(2.54423, 2.72295)	-8.07	0.000
2.34	260	2.70385	0.70354	0.04363	(2.61793, 2.78976)	-6.79	0.000
2.35	246	2.78862	0.70279	0.04481	(2.70036, 2.87688)	-4.72	0.000
2.36	270	2.22963	0.84871	0.05165	(2.12794, 2.33132)	-14.91	0.000
2.37	259	2.71042	0.65675	0.04081	(2.63006, 2.79079)	-7.10	0.000
2.38	265	2.38113	0.81302	0.04994	(2.28279, 2.47947)	-12.39	0.000
2.39	277	2.24910	0.78439	0.04713	(2.15632, 2.34188)	-15.93	0.000
2.310	276	2.19928	0.77703	0.04677	(2.10720, 2.29135)	-17.12	0.000
2.311	259	2.68340	0.72078	0.04479	(2.59520, 2.77159)	-7.07	0.000
2.41	245	2.17143	0.80164	0.05121	(2.07055, 2.27231)	-16.18	0.000
2.42	227	2.37885	0.80215	0.05324	(2.27394, 2.48377)	-11.67	0.000
2.43	205	2.38049	0.88651	0.06192	(2.25841, 2.50257)	-10.01	0.000
2.51	292	1.54110	0.78759	0.04609	(1.45038, 1.63181)	-31.65	0.000
2.52	194	2.08247	0.92932	0.06672	(1.95088, 2.21407)	-13.75	0.000
2.53	217	2.64516	0.68610	0.04658	(2.55336, 2.73696)	-7.62	0.000
2.54	225	2.27111	0.87235	0.05816	(2.15651, 2.38572)	-12.53	0.000
2.55	275	2.16727	0.87192	0.05258	(2.06376, 2.27078)	-15.84	0.000
2.61	237	4.39241	0.97968	0.06364	(4.26704, 4.51777)	21.88	0.000
2.62	209	4.25359	1.17170	0.08105	(4.09381, 4.41337)	15.47	0.000
2.63	217	4.36406	1.03691	0.07039	(4.22532, 4.50279)	19.38	0.000

Results for: 3.31 Have any members of your close family studied at University or College? NO

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	264	1.77652	0.91422	0.05627	(1.66573, 1.88730)	-21.74	0.000
2.12	262	2.30153	1.01177	0.06251	(2.17844, 2.42461)	-11.17	0.000
2.13	233	2.87124	0.73149	0.04792	(2.77683, 2.96566)	-2.69	0.008
2.14	261	2.47510	0.87506	0.05416	(2.36844, 2.58175)	-9.69	0.000
2.15	252	2.65873	0.91174	0.05743	(2.54562, 2.77185)	-5.94	0.000
2.16	208	2.79327	0.77432	0.05369	(2.68742, 2.89912)	-3.85	0.000
2.21	275	1.96000	0.95627	0.05767	(1.84648, 2.07352)	-18.04	0.000
2.22	280	1.92500	0.97169	0.05807	(1.81069, 2.03931)	-18.51	0.000
2.23	194	2.65979	0.95913	0.06886	(2.52398, 2.79561)	-4.94	0.000
2.24	219	2.76256	0.86643	0.05855	(2.64716, 2.87795)	-4.06	0.000
2.31	252	2.51587	0.75989	0.04787	(2.42160, 2.61015)	-10.11	0.000
2.32	250	2.84800	0.72871	0.04609	(2.75723, 2.93877)	-3.30	0.001
2.33	252	2.80159	0.69740	0.04393	(2.71506, 2.88811)	-4.52	0.000
2.34	254	2.76772	0.73128	0.04588	(2.67735, 2.85808)	-5.06	0.000
2.35	250	2.78000	0.77330	0.04891	(2.68367, 2.87633)	-4.50	0.000
2.36	259	2.42085	0.93826	0.05830	(2.30604, 2.53566)	-9.93	0.000
2.37	248	2.83871	0.68986	0.04381	(2.75243, 2.92499)	-3.68	0.000
2.38	249	2.75100	0.85327	0.05407	(2.64450, 2.85751)	-4.60	0.000
2.39	251	2.41833	0.89236	0.05633	(2.30739, 2.52926)	-10.33	0.000
2.310	252	2.36905	0.90743	0.05716	(2.25647, 2.48163)	-11.04	0.000
2.311	247	2.63968	0.85286	0.05427	(2.53279, 2.74656)	-6.64	0.000
2.41	227	2.22026	0.93361	0.06197	(2.09816, 2.34237)	-12.58	0.000
2.42	204	2.57843	0.92514	0.06477	(2.45072, 2.70615)	-6.51	0.000
2.43	191	2.49738	0.96177	0.06959	(2.36011, 2.63465)	-7.22	0.000
2.51	275	1.84727	1.07321	0.06472	(1.71987, 1.97468)	-17.81	0.000
2.52	181	2.41989	1.02222	0.07598	(2.26996, 2.56982)	-7.63	0.000
2.53	219	2.60274	0.90472	0.06114	(2.48225, 2.72323)	-6.50	0.000
2.54	221	2.37104	0.96666	0.06502	(2.24289, 2.49919)	-9.67	0.000
2.55	255	2.23529	0.96775	0.06060	(2.11595, 2.35464)	-12.62	0.000
2.61	234	3.93162	1.26509	0.08270	(3.76869, 4.09456)	11.26	0.000
2.62	208	3.90385	1.17969	0.08180	(3.74258, 4.06511)	11.05	0.000
2.63	222	3.90090	1.31442	0.08822	(3.72704, 4.07476)	10.21	0.000

Results for: 3.31 Have any members of your close family studied at University or College? YES

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	755	1.77351	0.90113	0.03280	(1.70913, 1.83789)	-37.40	0.000
2.12	723	2.35131	0.88443	0.03289	(2.28674, 2.41589)	-19.72	0.000
2.13	632	2.85918	0.70144	0.02790	(2.80439, 2.91397)	-5.05	0.000
2.14	729	2.26475	0.86277	0.03195	(2.20201, 2.32748)	-23.01	0.000
2.15	704	2.69176	0.80901	0.03049	(2.63190, 2.75163)	-10.11	0.000
2.16	582	2.70103	0.78932	0.03272	(2.63677, 2.76529)	-9.14	0.000
2.21	776	1.94974	0.88357	0.03172	(1.88748, 2.01201)	-33.11	0.000
2.22	767	1.93742	0.95663	0.03454	(1.86961, 2.00523)	-30.76	0.000
2.23	506	2.54941	0.91334	0.04060	(2.46964, 2.62918)	-11.10	0.000
2.24	599	2.60768	0.93502	0.03820	(2.53265, 2.68271)	-10.27	0.000
2.31	706	2.55241	0.82562	0.03107	(2.49140, 2.61341)	-14.40	0.000
2.32	669	2.81614	0.74463	0.02879	(2.75962, 2.87267)	-6.39	0.000
2.33	669	2.80269	0.79853	0.03087	(2.74207, 2.86331)	-6.39	0.000
2.34	686	2.73178	0.84287	0.03218	(2.66859, 2.79496)	-8.33	0.000
2.35	668	2.78743	0.77616	0.03003	(2.72846, 2.84639)	-7.08	0.000
2.36	703	2.47368	0.89734	0.03384	(2.40724, 2.54013)	-15.55	0.000
2.37	665	2.85414	0.73309	0.02843	(2.79832, 2.90996)	-5.13	0.000
2.38	670	2.71493	0.84400	0.03261	(2.65090, 2.77895)	-8.74	0.000
2.39	672	2.44345	0.93440	0.03605	(2.37268, 2.51423)	-15.44	0.000
2.310	663	2.45551	0.93637	0.03637	(2.38410, 2.52691)	-14.97	0.000
2.311	645	2.65116	0.87806	0.03457	(2.58327, 2.71905)	-10.09	0.000
2.41	638	2.26176	0.91326	0.03616	(2.19076, 2.33276)	-20.42	0.000
2.42	597	2.54606	0.94831	0.03881	(2.46984, 2.62229)	-11.70	0.000
2.43	545	2.56697	0.97374	0.04171	(2.48504, 2.64891)	-10.38	0.000
2.51	742	1.85040	0.95964	0.03523	(1.78124, 1.91957)	-32.63	0.000
2.52	483	2.37681	1.00147	0.04557	(2.28727, 2.46635)	-13.68	0.000
2.53	625	2.63360	0.83694	0.03348	(2.56786, 2.69934)	-10.94	0.000
2.54	602	2.35050	0.94353	0.03846	(2.27497, 2.42602)	-16.89	0.000
2.55	710	2.26338	0.97337	0.03653	(2.19166, 2.33510)	-20.16	0.000
2.61	651	4.06452	1.20211	0.04711	(3.97200, 4.15703)	22.59	0.000
2.62	599	4.04341	1.23553	0.05048	(3.94426, 4.14255)	20.67	0.000
2.63	620	3.94032	1.30909	0.05257	(3.83708, 4.04357)	17.89	0.000

Results for 3.32 Are/ were you entitled to receive free school meals? NO

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	852	1.76643	0.88632	0.03036	(1.70683, 1.82603)	-40.62	0.000
2.12	822	2.33333	0.91053	0.03176	(2.27100, 2.39567)	-20.99	0.000
2.13	730	2.86849	0.70602	0.02613	(2.81719, 2.91979)	-5.03	0.000
2.14	831	2.29964	0.85192	0.02955	(2.24163, 2.35765)	-23.70	0.000
2.15	803	2.67746	0.79388	0.02802	(2.62247, 2.73245)	-11.51	0.000
2.16	668	2.71108	0.77946	0.03016	(2.65186, 2.77029)	-9.58	0.000
2.21	877	1.92360	0.88743	0.02997	(1.86479, 1.98242)	-35.92	0.000
2.22	873	1.91294	0.92950	0.03146	(1.85120, 1.97469)	-34.55	0.000
2.23	594	2.60438	0.91089	0.03737	(2.53097, 2.67778)	-10.59	0.000
2.24	689	2.65457	0.90845	0.03461	(2.58662, 2.72252)	-9.98	0.000
2.31	805	2.54410	0.79464	0.02801	(2.48912, 2.59908)	-16.28	0.000
2.32	777	2.80695	0.71710	0.02573	(2.75645, 2.85745)	-7.50	0.000
2.33	774	2.80620	0.74317	0.02671	(2.75376, 2.85864)	-7.25	0.000
2.34	781	2.75416	0.77856	0.02786	(2.69947, 2.80885)	-8.82	0.000
2.35	768	2.77734	0.75476	0.02723	(2.72388, 2.83081)	-8.18	0.000
2.36	803	2.43337	0.88854	0.03136	(2.37183, 2.49492)	-18.07	0.000
2.37	766	2.85379	0.68373	0.02470	(2.80529, 2.90228)	-5.92	0.000
2.38	767	2.69100	0.83320	0.03008	(2.63195, 2.75006)	-10.27	0.000
2.39	774	2.37855	0.88839	0.03193	(2.31587, 2.44124)	-19.46	0.000
2.310	771	2.38392	0.90192	0.03248	(2.32015, 2.44768)	-18.97	0.000
2.311	747	2.64659	0.83224	0.03045	(2.58681, 2.70636)	-11.61	0.000
2.41	724	2.27486	0.91272	0.03392	(2.20827, 2.34146)	-21.38	0.000
2.42	676	2.56805	0.92686	0.03565	(2.49805, 2.63804)	-12.12	0.000
2.43	622	2.55949	0.96250	0.03859	(2.48370, 2.63527)	-11.41	0.000
2.51	864	1.83681	0.98658	0.03356	(1.77093, 1.90268)	-34.66	0.000
2.52	556	2.40108	0.99509	0.04220	(2.31819, 2.48397)	-14.19	0.000
2.53	717	2.63598	0.84727	0.03164	(2.57386, 2.69811)	-11.50	0.000
2.54	693	2.34343	0.94216	0.03579	(2.27317, 2.41370)	-18.35	0.000
2.55	819	2.22955	0.95807	0.03348	(2.16384, 2.29526)	-23.01	0.000
2.61	748	4.06150	1.19860	0.04383	(3.97546, 4.14753)	24.22	0.000
2.62	675	4.05778	1.19392	0.04595	(3.96755, 4.14801)	23.02	0.000
2.63	704	4.00710	1.26388	0.04763	(3.91358, 4.10062)	21.14	0.000

Results for: Are/ were you entitled to receive free school meals? YES

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	162	1.80864	0.96223	0.07560	(1.65935, 1.95794)	-15.76	0.000
2.12	159	2.36478	0.97059	0.07697	(2.21275, 2.51681)	-8.25	0.000
2.13	131	2.83206	0.71417	0.06240	(2.70862, 2.95551)	-2.69	0.008
2.14	156	2.41667	0.96358	0.07715	(2.26427, 2.56906)	-7.56	0.000
2.15	149	2.69128	1.03257	0.08459	(2.52411, 2.85844)	-3.65	0.000
2.16	120	2.80833	0.81267	0.07419	(2.66144, 2.95523)	-2.58	0.011
2.21	169	2.11243	0.96629	0.07433	(1.96569, 2.25917)	-11.94	0.000
2.22	170	2.04118	1.09521	0.08400	(1.87535, 2.20700)	-11.41	0.000
2.23	104	2.45192	1.00368	0.09842	(2.25673, 2.64711)	-5.57	0.000
2.24	126	2.61905	0.98677	0.08791	(2.44507, 2.79303)	-4.33	0.000
2.31	149	2.53691	0.88930	0.07285	(2.39294, 2.68088)	-6.36	0.000
2.32	139	2.93525	0.85303	0.07235	(2.79219, 3.07832)	-0.89	0.372
2.33	142	2.81690	0.89617	0.07520	(2.66823, 2.96558)	-2.43	0.016
2.34	155	2.68387	0.97870	0.07861	(2.52858, 2.83917)	-4.02	0.000
2.35	148	2.82432	0.87844	0.07221	(2.68163, 2.96702)	-2.43	0.016
2.36	155	2.58710	0.99862	0.08021	(2.42864, 2.74555)	-5.15	0.000
2.37	143	2.81119	0.88772	0.07423	(2.66444, 2.95794)	-2.54	0.012
2.38	149	2.90604	0.89550	0.07336	(2.76107, 3.05101)	-1.28	0.202
2.39	145	2.73103	1.02913	0.08546	(2.56211, 2.89996)	-3.15	0.002
2.310	140	2.68571	1.03246	0.08726	(2.51319, 2.85824)	-3.60	0.000
2.311	141	2.65957	1.05444	0.08880	(2.48401, 2.83514)	-3.83	0.000
2.41	137	2.14599	0.94356	0.08061	(1.98657, 2.30540)	-10.59	0.000
2.42	122	2.46721	1.02194	0.09252	(2.28404, 2.65039)	-5.76	0.000
2.43	112	2.49107	1.02224	0.09659	(2.29967, 2.68248)	-5.27	0.000
2.51	149	1.92617	1.02069	0.08362	(1.76093, 2.09141)	-12.84	0.000
2.52	106	2.33019	1.07546	0.10446	(2.12307, 2.53731)	-6.41	0.000
2.53	127	2.56693	0.89612	0.07952	(2.40957, 2.72429)	-5.45	0.000
2.54	128	2.42969	0.99355	0.08782	(2.25591, 2.60346)	-6.49	0.000
2.55	145	2.41379	1.03807	0.08621	(2.24340, 2.58419)	-6.80	0.000
2.61	135	3.85185	1.32439	0.11399	(3.62641, 4.07729)	7.47	0.000
2.62	130	3.76154	1.33993	0.11752	(3.52902, 3.99405)	6.48	0.000
2.63	135	3.57778	1.44794	0.12462	(3.33130, 3.82425)	4.64	0.000

Results for 3.33 Did you attend an English speaking school? NO

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	90	1.87778	1.06874	0.11265	(1.65394, 2.10162)	-9.96	0.000
2.12	88	2.59091	0.93016	0.09916	(2.39383, 2.78799)	-4.13	0.000
2.13	69	2.92754	0.91264	0.10987	(2.70830, 3.14678)	-0.66	0.512
2.14	86	2.45349	1.02506	0.11054	(2.23371, 2.67326)	-4.94	0.000
2.15	81	2.91358	1.07468	0.11941	(2.67595, 3.15121)	-0.72	0.471
2.16	75	2.89333	0.96665	0.11162	(2.67093, 3.11574)	-0.96	0.342
2.21	90	2.15556	1.05906	0.11163	(1.93374, 2.37737)	-7.56	0.000
2.22	92	2.09783	1.05934	0.11044	(1.87844, 2.31721)	-8.17	0.000
2.23	59	2.66102	0.95791	0.12471	(2.41138, 2.91065)	-2.72	0.009
2.24	71	2.78873	1.02700	0.12188	(2.54565, 3.03182)	-1.73	0.087
2.31	77	2.42857	0.97911	0.11158	(2.20634, 2.65080)	-5.12	0.000
2.32	77	2.70130	0.96060	0.10947	(2.48327, 2.91933)	-2.73	0.008
2.33	77	2.68831	0.87749	0.10000	(2.48915, 2.88748)	-3.12	0.003
2.34	82	2.65854	0.97144	0.10728	(2.44509, 2.87198)	-3.18	0.002
2.35	78	2.71795	0.89584	0.10143	(2.51597, 2.91993)	-2.78	0.007
2.36	78	2.60256	0.94443	0.10694	(2.38963, 2.81550)	-3.72	0.000
2.37	76	2.76316	0.81435	0.09341	(2.57707, 2.94924)	-2.54	0.013
2.38	73	2.79452	0.72570	0.08494	(2.62520, 2.96384)	-2.42	0.018
2.39	76	2.56579	0.94284	0.10815	(2.35034, 2.78124)	-4.01	0.000
2.310	73	2.68493	0.83128	0.09729	(2.49098, 2.87888)	-3.24	0.002
2.311	67	2.76119	0.97062	0.11858	(2.52444, 2.99795)	-2.01	0.048
2.41	77	2.23377	1.06247	0.12108	(1.99261, 2.47492)	-6.33	0.000
2.42	74	2.62162	1.02973	0.11970	(2.38305, 2.86019)	-3.16	0.002
2.43	70	2.72857	1.15371	0.13790	(2.45348, 3.00366)	-1.97	0.053
2.51	87	2.03448	1.15586	0.12392	(1.78814, 2.28083)	-7.79	0.000
2.52	66	2.71212	1.06360	0.13092	(2.45066, 2.97359)	-2.20	0.031
2.53	71	2.78873	0.96976	0.11509	(2.55919, 3.01827)	-1.84	0.071
2.54	74	2.52703	1.04976	0.12203	(2.28382, 2.77024)	-3.88	0.000
2.55	81	2.65432	1.15283	0.12809	(2.39941, 2.90923)	-2.70	0.008
2.61	80	3.43750	1.35799	0.15183	(3.13529, 3.73971)	2.88	0.005
2.62	69	3.37681	1.28454	0.15464	(3.06823, 3.68539)	2.44	0.017
2.63	72	3.31944	1.31969	0.15553	(3.00933, 3.62956)	2.05	0.044

Results for: 3.33 Did you attend an English speaking school? YES

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	929	1.76426	0.88655	0.02909	(1.70718, 1.82135)	-42.48	0.000
2.12	896	2.31585	0.92005	0.03074	(2.25552, 2.37617)	-22.26	0.000
2.13	795	2.85535	0.68848	0.02442	(2.80741, 2.90328)	-5.92	0.000
2.14	903	2.30786	0.85437	0.02843	(2.25206, 2.36366)	-24.34	0.000
2.15	875	2.65600	0.80577	0.02724	(2.60254, 2.70946)	-12.63	0.000
2.16	714	2.71008	0.76107	0.02848	(2.65416, 2.76600)	-10.18	0.000
2.21	960	1.93542	0.88787	0.02866	(1.87918, 1.99165)	-37.15	0.000
2.22	956	1.91318	0.94774	0.03065	(1.85303, 1.97333)	-35.46	0.000
2.23	640	2.57031	0.92508	0.03657	(2.49851, 2.64212)	-11.75	0.000
2.24	746	2.63539	0.90844	0.03326	(2.57009, 2.70068)	-10.96	0.000
2.31	881	2.55392	0.79608	0.02682	(2.50128, 2.60656)	-16.63	0.000
2.32	842	2.83729	0.72061	0.02483	(2.78855, 2.88604)	-6.55	0.000
2.33	842	2.81829	0.76112	0.02623	(2.76681, 2.86977)	-6.93	0.000
2.34	857	2.75146	0.79724	0.02723	(2.69801, 2.80491)	-9.13	0.000
2.35	840	2.79048	0.76353	0.02634	(2.73877, 2.84218)	-7.95	0.000
2.36	884	2.44570	0.90824	0.03055	(2.38575, 2.50566)	-18.15	0.000
2.37	837	2.85783	0.71223	0.02462	(2.80950, 2.90615)	-5.78	0.000
2.38	847	2.72373	0.85701	0.02945	(2.66593, 2.78153)	-9.38	0.000
2.39	846	2.42317	0.92083	0.03166	(2.36103, 2.48531)	-18.22	0.000
2.310	841	2.40666	0.93282	0.03217	(2.34352, 2.46979)	-18.45	0.000
2.311	823	2.63913	0.86273	0.03007	(2.58010, 2.69815)	-12.00	0.000
2.41	786	2.25445	0.90371	0.03223	(2.19118, 2.31773)	-23.13	0.000
2.42	725	2.54345	0.93274	0.03464	(2.47544, 2.61146)	-13.18	0.000
2.43	665	2.52932	0.94875	0.03679	(2.45708, 2.60156)	-12.79	0.000
2.51	929	1.82670	0.97219	0.03190	(1.76410, 1.88929)	-36.78	0.000
2.52	598	2.35117	0.99433	0.04066	(2.27131, 2.43103)	-15.96	0.000
2.53	774	2.60982	0.84210	0.03027	(2.55040, 2.66924)	-12.89	0.000
2.54	750	2.33733	0.93846	0.03427	(2.27006, 2.40461)	-19.34	0.000
2.55	884	2.21833	0.94639	0.03183	(2.15585, 2.28080)	-24.56	0.000
2.61	805	4.08820	1.19010	0.04195	(4.00586, 4.17053)	25.94	0.000
2.62	738	4.07046	1.19833	0.04411	(3.98386, 4.15706)	24.27	0.000
2.63	769	3.99610	1.28745	0.04643	(3.90496, 4.08724)	21.46	0.000

Results for 3.34 Are you registered disabled? NO

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	972	1.75926	0.88915	0.02852	(1.70329, 1.81523)	-43.50	0.000
2.12	939	2.33546	0.90916	0.02967	(2.27724, 2.39369)	-22.40	0.000
2.13	825	2.86545	0.69853	0.02432	(2.81772, 2.91319)	-5.53	0.000
2.14	946	2.30127	0.85396	0.02776	(2.24678, 2.35576)	-25.17	0.000
2.15	915	2.66995	0.81983	0.02710	(2.61675, 2.72314)	-12.18	0.000
2.16	754	2.73210	0.77295	0.02815	(2.67684, 2.78736)	-9.52	0.000
2.21	1005	1.94328	0.89363	0.02819	(1.88797, 1.99860)	-37.49	0.000
2.22	999	1.90591	0.93643	0.02963	(1.84777, 1.96405)	-36.93	0.000
2.23	667	2.58771	0.90678	0.03511	(2.51877, 2.65665)	-11.74	0.000
2.24	785	2.63822	0.90861	0.03243	(2.57456, 2.70188)	-11.16	0.000
2.31	919	2.54081	0.79089	0.02609	(2.48960, 2.59201)	-17.60	0.000
2.32	878	2.82460	0.72186	0.02436	(2.77679, 2.87242)	-7.20	0.000
2.33	880	2.79773	0.75721	0.02553	(2.74763, 2.84783)	-7.92	0.000
2.34	896	2.73437	0.79015	0.02640	(2.68257, 2.78618)	-10.06	0.000
2.35	878	2.78132	0.76109	0.02569	(2.73091, 2.83173)	-8.51	0.000
2.36	920	2.44022	0.89899	0.02964	(2.38205, 2.49838)	-18.89	0.000
2.37	872	2.83372	0.70008	0.02371	(2.78718, 2.88025)	-7.01	0.000
2.38	877	2.72406	0.83257	0.02811	(2.66888, 2.77924)	-9.82	0.000
2.39	881	2.42225	0.91262	0.03075	(2.36190, 2.48259)	-18.79	0.000
2.310	873	2.41123	0.91832	0.03108	(2.35022, 2.47223)	-18.94	0.000
2.311	848	2.64623	0.85548	0.02938	(2.58857, 2.70389)	-12.04	0.000
2.41	822	2.25061	0.90766	0.03166	(2.18847, 2.31275)	-23.67	0.000
2.42	765	2.53464	0.92827	0.03356	(2.46876, 2.60052)	-13.87	0.000
2.43	703	2.53627	0.96582	0.03643	(2.46476, 2.60779)	-12.73	0.000
2.51	975	1.83487	0.97632	0.03127	(1.77351, 1.89623)	-37.26	0.000
2.52	633	2.38547	0.98722	0.03924	(2.30841, 2.46252)	-15.66	0.000
2.53	808	2.62129	0.84639	0.02978	(2.56284, 2.67973)	-12.72	0.000
2.54	787	2.35070	0.94047	0.03352	(2.28489, 2.41651)	-19.37	0.000
2.55	921	2.23779	0.95150	0.03135	(2.17625, 2.29932)	-24.31	0.000
2.61	846	4.03428	1.21529	0.04178	(3.95227, 4.11629)	24.75	0.000
2.62	769	4.02731	1.21430	0.04379	(3.94135, 4.11327)	23.46	0.000
2.63	802	3.95511	1.29841	0.04585	(3.86511, 4.04511)	20.83	0.000

Results for: 3.34 Are you registered disabled? YES

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	42	2.07143	1.06823	0.16483	(1.73854, 2.40431)	-5.63	0.000
2.12	44	2.40909	1.12721	0.16993	(2.06639, 2.75180)	-3.48	0.001
2.13	38	2.81579	0.86541	0.14039	(2.53134, 3.10024)	-1.31	0.198
2.14	40	2.75000	1.14914	0.18169	(2.38249, 3.11751)	-1.38	0.177
2.15	39	2.92308	1.10940	0.17765	(2.56345, 3.28270)	-0.43	0.667
2.16	35	2.62857	1.00252	0.16946	(2.28419, 2.97295)	-2.19	0.035
2.21	43	2.16279	1.08957	0.16616	(1.82747, 2.49811)	-5.04	0.000
2.22	47	2.48936	1.23134	0.17961	(2.12783, 2.85090)	-2.84	0.007
2.23	30	2.50000	1.22474	0.22361	(2.04267, 2.95733)	-2.24	0.033
2.24	31	2.96774	1.11007	0.19937	(2.56056, 3.37492)	-0.16	0.873
2.31	37	2.45946	1.12038	0.18419	(2.08591, 2.83301)	-2.93	0.006
2.32	39	2.84615	1.06471	0.17049	(2.50102, 3.19129)	-0.90	0.373
2.33	38	2.97368	0.99964	0.16216	(2.64511, 3.30226)	-0.16	0.872
2.34	41	2.95122	1.20315	0.18790	(2.57146, 3.33098)	-0.26	0.796
2.35	38	2.86842	1.06976	0.17354	(2.51680, 3.22004)	-0.76	0.453
2.36	38	2.86842	0.99107	0.16077	(2.54266, 3.19418)	-0.82	0.418
2.37	38	3.13158	1.01798	0.16514	(2.79698, 3.46618)	0.80	0.431
2.38	39	2.74359	1.09347	0.17510	(2.38913, 3.09805)	-1.46	0.151
2.39	39	2.61538	1.04164	0.16680	(2.27772, 2.95305)	-2.31	0.027
2.310	39	2.76923	1.01207	0.16206	(2.44115, 3.09731)	-1.42	0.163
2.311	39	2.76923	1.13466	0.18169	(2.40142, 3.13704)	-1.27	0.212
2.41	40	2.37500	1.10215	0.17427	(2.02251, 2.72749)	-3.59	0.001
2.42	34	2.97059	1.11424	0.19109	(2.58181, 3.35937)	-0.15	0.879
2.43	31	2.93548	0.96386	0.17311	(2.58194, 3.28903)	-0.37	0.712
2.51	39	2.20513	1.28103	0.20513	(1.78987, 2.62039)	-3.88	0.000
2.52	29	2.51724	1.37894	0.25606	(1.99272, 3.04176)	-1.89	0.070
2.53	35	2.68571	1.02244	0.17282	(2.33449, 3.03693)	-1.82	0.078
2.54	35	2.48571	1.14716	0.19390	(2.09165, 2.87978)	-2.65	0.012
2.55	43	2.60465	1.31184	0.20005	(2.20093, 3.00838)	-1.98	0.055
2.61	38	3.89474	1.33132	0.21597	(3.45714, 4.33233)	4.14	0.000
2.62	37	3.62162	1.34063	0.22040	(3.17463, 4.06861)	2.82	0.008
2.63	39	3.51282	1.37404	0.22002	(3.06741, 3.95823)	2.33	0.025

Results for: 3.35 Is English your first language? NO

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	84	1.83333	1.02773	0.11213	(1.61030, 2.05636)	-10.40	0.000
2.12	75	2.52000	0.96366	0.11127	(2.29828, 2.74172)	-4.31	0.000
2.13	60	2.75000	0.89490	0.11553	(2.51882, 2.98118)	-2.16	0.035
2.14	73	2.61644	1.15024	0.13463	(2.34807, 2.88481)	-2.85	0.006
2.15	77	2.81818	1.00952	0.11505	(2.58905, 3.04732)	-1.58	0.118
2.16	58	2.84483	1.12080	0.14717	(2.55013, 3.13953)	-1.05	0.296
2.21	85	2.21176	1.09212	0.11846	(1.97620, 2.44733)	-6.65	0.000
2.22	82	2.09756	1.11787	0.12345	(1.85194, 2.34318)	-7.31	0.000
2.23	53	2.54717	0.97203	0.13352	(2.27924, 2.81510)	-3.39	0.001
2.24	67	2.62687	0.95085	0.11616	(2.39494, 2.85880)	-3.21	0.002
2.31	73	2.21918	0.96100	0.11248	(1.99496, 2.44340)	-6.94	0.000
2.32	68	2.55882	0.88743	0.10762	(2.34402, 2.77363)	-4.10	0.000
2.33	68	2.60294	0.86628	0.10505	(2.39326, 2.81263)	-3.78	0.000
2.34	72	2.77778	0.98184	0.11571	(2.54706, 3.00850)	-1.92	0.059
2.35	62	2.88710	0.94270	0.11972	(2.64770, 3.12650)	-0.94	0.349
2.36	69	2.65217	1.02650	0.12358	(2.40558, 2.89877)	-2.81	0.006
2.37	65	2.76923	0.87979	0.10913	(2.55123, 2.98723)	-2.11	0.038
2.38	65	2.90769	0.87897	0.10902	(2.68989, 3.12549)	-0.85	0.400
2.39	69	2.46377	1.02297	0.12315	(2.21802, 2.70951)	-4.35	0.000
2.310	69	2.44928	0.86664	0.10433	(2.24109, 2.65747)	-5.28	0.000
2.311	63	2.58730	0.92693	0.11678	(2.35386, 2.82074)	-3.53	0.001
2.41	67	2.16418	1.00901	0.12327	(1.91806, 2.41029)	-6.78	0.000
2.42	68	2.70588	1.14682	0.13907	(2.42829, 2.98347)	-2.11	0.038
2.43	59	2.88136	1.14598	0.14919	(2.58271, 3.18000)	-0.80	0.430
2.51	77	1.76623	1.09900	0.12524	(1.51679, 2.01568)	-9.85	0.000
2.52	63	2.20635	1.15226	0.14517	(1.91616, 2.49654)	-5.47	0.000
2.53	62	2.45161	0.96966	0.12315	(2.20537, 2.69786)	-4.45	0.000
2.54	71	2.59155	1.11583	0.13242	(2.32744, 2.85566)	-3.08	0.003
2.55	75	2.45333	1.13057	0.13055	(2.19321, 2.71345)	-4.19	0.000
2.61	64	3.31250	1.33184	0.16648	(2.97982, 3.64518)	1.88	0.065
2.62	55	3.36364	1.33837	0.18047	(3.00182, 3.72545)	2.01	0.049
2.63	61	3.47541	1.28591	0.16464	(3.14607, 3.80475)	2.89	0.005

Results for: 3.35 Is English your first language? YES

One-Sample T: 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.21, 2.22, ...

Test of mu = 3 vs not = 3

Variable	N	Mean	StDev	SE Mean	95% CI	T	P
2.11	928	1.76832	0.88691	0.02911	(1.71118, 1.82546)	-42.31	0.000
2.12	905	2.32044	0.91150	0.03030	(2.26098, 2.37991)	-22.43	0.000
2.13	800	2.87125	0.69121	0.02444	(2.82328, 2.91922)	-5.27	0.000
2.14	912	2.29276	0.84263	0.02790	(2.23800, 2.34752)	-25.35	0.000
2.15	874	2.66819	0.81774	0.02766	(2.61390, 2.72248)	-12.00	0.000
2.16	728	2.71978	0.74991	0.02779	(2.66522, 2.77435)	-10.08	0.000
2.21	960	1.93125	0.88166	0.02846	(1.87541, 1.98709)	-37.56	0.000
2.22	961	1.91779	0.94125	0.03036	(1.85821, 1.97738)	-35.64	0.000
2.23	642	2.58255	0.92134	0.03636	(2.51115, 2.65396)	-11.48	0.000
2.24	748	2.64973	0.91852	0.03358	(2.58380, 2.71566)	-10.43	0.000
2.31	880	2.56591	0.78682	0.02652	(2.51385, 2.61797)	-16.37	0.000
2.32	847	2.84416	0.72561	0.02493	(2.79522, 2.89309)	-6.25	0.000
2.33	848	2.82075	0.75963	0.02609	(2.76955, 2.87196)	-6.87	0.000
2.34	864	2.73843	0.80041	0.02723	(2.68498, 2.79187)	-9.61	0.000
2.35	852	2.77700	0.76316	0.02615	(2.72568, 2.82831)	-8.53	0.000
2.36	887	2.44081	0.89559	0.03007	(2.38179, 2.49983)	-18.60	0.000
2.37	842	2.85273	0.70478	0.02429	(2.80506, 2.90040)	-6.06	0.000
2.38	849	2.70789	0.84365	0.02895	(2.65106, 2.76472)	-10.09	0.000
2.39	848	2.42807	0.91143	0.03130	(2.36663, 2.48950)	-18.27	0.000
2.310	840	2.42619	0.92985	0.03208	(2.36322, 2.48916)	-17.89	0.000
2.311	822	2.65572	0.86590	0.03020	(2.59644, 2.71500)	-11.40	0.000
2.41	793	2.26482	0.91590	0.03252	(2.20097, 2.32866)	-22.60	0.000
2.42	728	2.53984	0.91964	0.03408	(2.47292, 2.60675)	-13.50	0.000
2.43	673	2.52155	0.94958	0.03660	(2.44967, 2.59342)	-13.07	0.000
2.51	936	1.85791	0.98334	0.03214	(1.79483, 1.92098)	-35.53	0.000
2.52	599	2.40902	0.99058	0.04047	(2.32953, 2.48850)	-14.60	0.000
2.53	779	2.63671	0.84399	0.03024	(2.57735, 2.69607)	-12.01	0.000
2.54	749	2.33244	0.93092	0.03401	(2.26567, 2.39922)	-19.63	0.000
2.55	886	2.23928	0.95744	0.03217	(2.17615, 2.30241)	-23.65	0.000
2.61	819	4.08547	1.19392	0.04172	(4.00358, 4.16736)	26.02	0.000
2.62	749	4.05607	1.20141	0.04390	(3.96990, 4.14225)	24.06	0.000
2.63	777	3.97297	1.29950	0.04662	(3.88146, 4.06449)	20.87	0.000

6.9 Additional Comments

Gap year due to medical reasons

Another reason for taking a gap year was so I didn't arrive at university when I was still 17.

I like physics and have always wanted to do it.

This survey isn't very relevant to students taking a general degree.

I am wanting to start my career in health care.

I failed so I have to resit. Is a very difficult subject.

I picked it cause its good to have, not necessarily because I liked it.

I chose chemistry because I found it interesting in school and I just want to learn more.

The main reason I chose to study maths further is because I really enjoy it. I am also studying physics.

I'm only at college day release I work as an engineer.

I want to leave school.

I had to take maths but I enjoy it more than physics.

In my personal opinion – all sciences are a waste of time and could be spent on better subject. All sciences are rubbish.

Personally I don't really like physics.

In my opinion science is the biggest waste of time it is boring and rubbish.

I think physics is too hard and is completely crap.

Not to do science at all I don't like science.

No sciences at all.

I have learnt a new word 'not applicable'.

I would enjoy to be a forensic detective.

Nobody tried to encourage me at school or home. It was my own interest that made me choose the subject.

I like chemistry more than maths but not as much as I do music but chemistry bores me too.

Chemistry smells.

If I may say so myself I only picked it because there was feck all else.

Science is my worst subject.

I enjoy chemistry because I get lots of experiments.

I have always enjoyed science.

I am wanting to be an electronic engineer when I leave school so I really wanted to take this subject and I need it anyway.

I have always found the science side of school and maths very enjoyable and interesting.

I have come to university after working in people support sessions for 20 years.

Was studying economics didn't like it took a break then decide to do something I enjoyed in school.

Reason for taking is mainly to get a degree before join police and potential for forensic science.

I like chemistry and biology a lot and feel the same about all sciences.

Mature student break in studies due to having children.

Between leaving school and university I have studied a different course at college.

I have entered this subject area as I feel I can pull together and consolidate my life skills and utilise these to enhance my career prospects.

Mature student (46) who wanted to leave school as soon as possible. Now returning to HE because I want to.

Studied town planning for two years at degree level at Dundee Uni. Have since changed to study engineering.

I need this subject as a higher for the psychology course that I will hopefully attend at university after school.

I chose biology because I want to be a beauty therapist.

I took biology because I want to be a vet or work for the R.S.P.

I took biology to help me do the job I want to do.

I chose IT because it is easy but I really want to be a mechanic.

I had to take physics to get into university.

I took biology simply because I needed it to get into university.