

LTC09D042

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A-Levels and attainment 2006 - 2009

A report from the review of assessment panel

Overview

From September 2006 it has been possible to examine student performance on undergraduate programmes at UEA and refer to A-Levels on entry as a category of analysis. Part 1 of the report tracks selected cohorts through the years of study of selected degree programmes.

Many of the students starting undergraduate programmes in September 2006 completed study in the 2008/9 academic year. All finalists in 2008/9 have been included in Part 2 and detailed analysis using A-Levels on entry have been made where possible.

The report includes information and discussion with an institutional overview in mind so includes comparisons by qualification on entry as well as A-Level detail. The dataset that has been created for this study could be used for other more detailed analyses at School level. Most Schools will receive their own reports along with an offer to request their dataset for their own internal study.

Feedback on this report will help the legacy aspect of the review of assessment which is to assist the Planning Office identify useful management information which should be retained from the project.

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November 2009

PART 1: Students commencing in 2006/7

1.1 Introduction

The introduction of the new student information system in 2005/6 (Admissions) has allowed the University to hold more detailed data along with qualifications on entry for each student, including detail on A-Level subjects and grades. The majority of the student population at UEA have completed A-Levels immediately prior to commencing study.

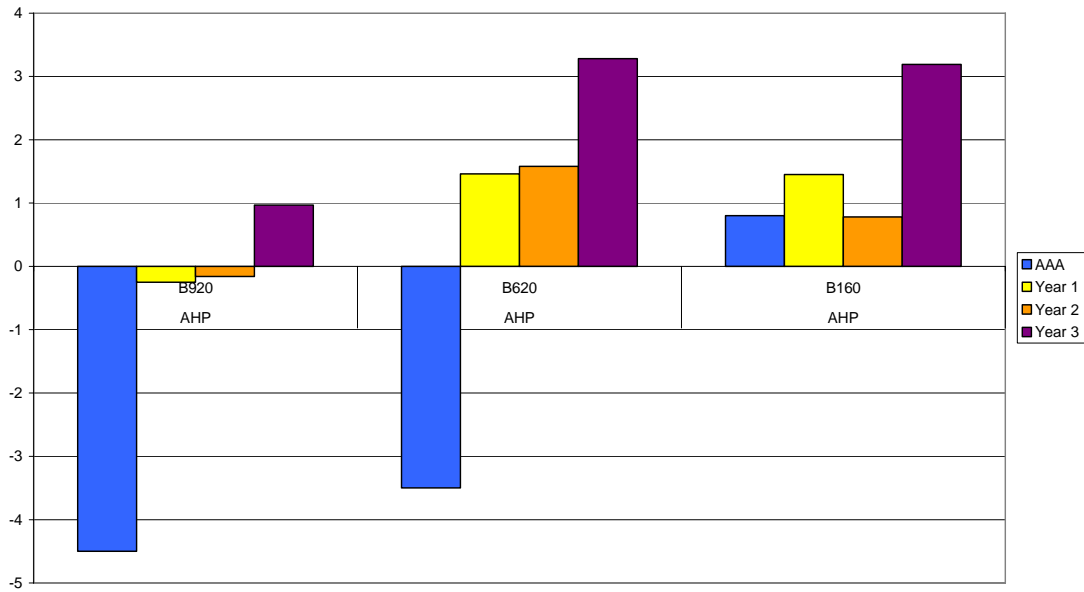
1.2 Student progress

At the end of the 2006/7 academic year the difference between the average A-Level tariff on entry and the end of year average was examined for the largest course run in each School¹. The study became known as “blue-yellow”. At the end of the 2007/8 academic year this was updated to include the end of year average for Year 2, and now this has been updated again to include the end of year average for Year 3, which in many cases is the final year of study. The graphs are shown below. AAA refers to the A-Level tariff on entry from which the score of 300 is subtracted so that scores are zeroed at BBB, and end of year averages have 60% subtracted so that scores are zeroed at the minimum for a 2(i). A list of course titles, years of study and numbers of students included in the study is contained in **Appendix A**.

Tariff scores have been used by several external league tables and HESA as an indicator of entry standards. The Complete University Guide 2010 (formerly the Good University Guide) uses a HESA calculation of entry tariff for the first time rather than the UCAS calculation. Nationally there has been a notable drop in some tariff scores as a result of this change which is currently under investigation. The work in Part 1 is an internal examination of this performance indicator.

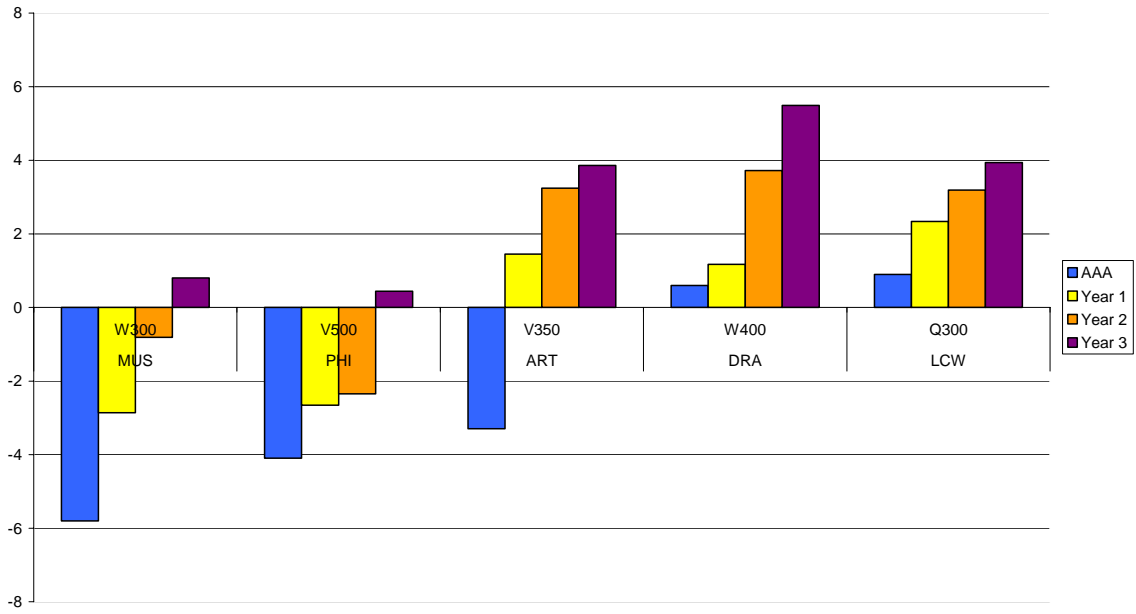
¹ Not including EDU, MED or NAM. The first EDU students on X300 will complete in 2009/0, MED do not use the 0 – 100 marking scheme and NAM modules and results are not currently stored on SITS.

AHP: Entry score, Year 1, Year 2, Year 3

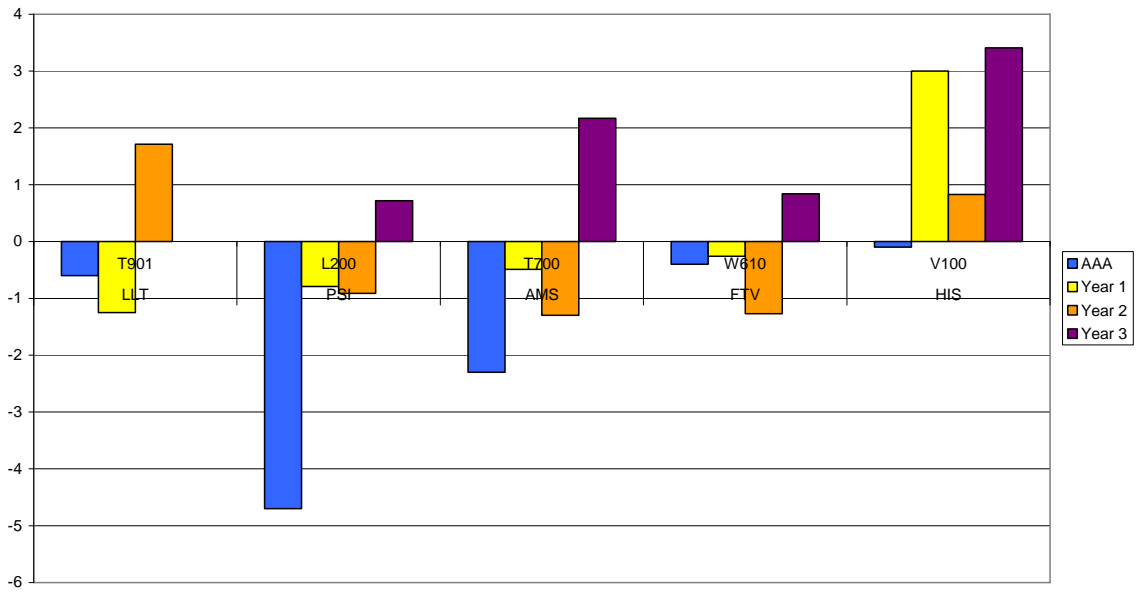


AHP was the only FOH School amenable to this analysis. The student cohorts entering the three programmes indicated have markedly different A-Level tariffs on entry. The lower A-Level attainment of the B920 cohort on entry may be responsible for the lower degree attainment compared with the B620 / B160 cohorts. However, A-Level attainment is not the sole determinant of degree outcome as comparison of the B620 and B160 cohorts reveals. A proper understanding of what, if anything, such a presentation of the data reveals about these student cohorts can only be undertaken at School level.

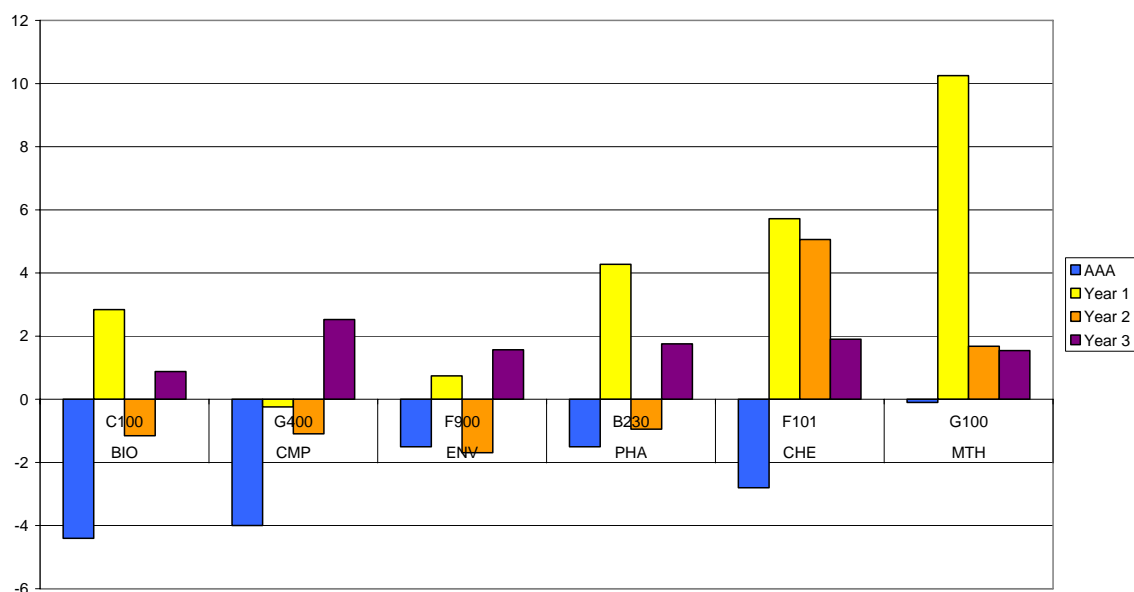
HUM1: Entry score, Year 1, Year 2, Year 3



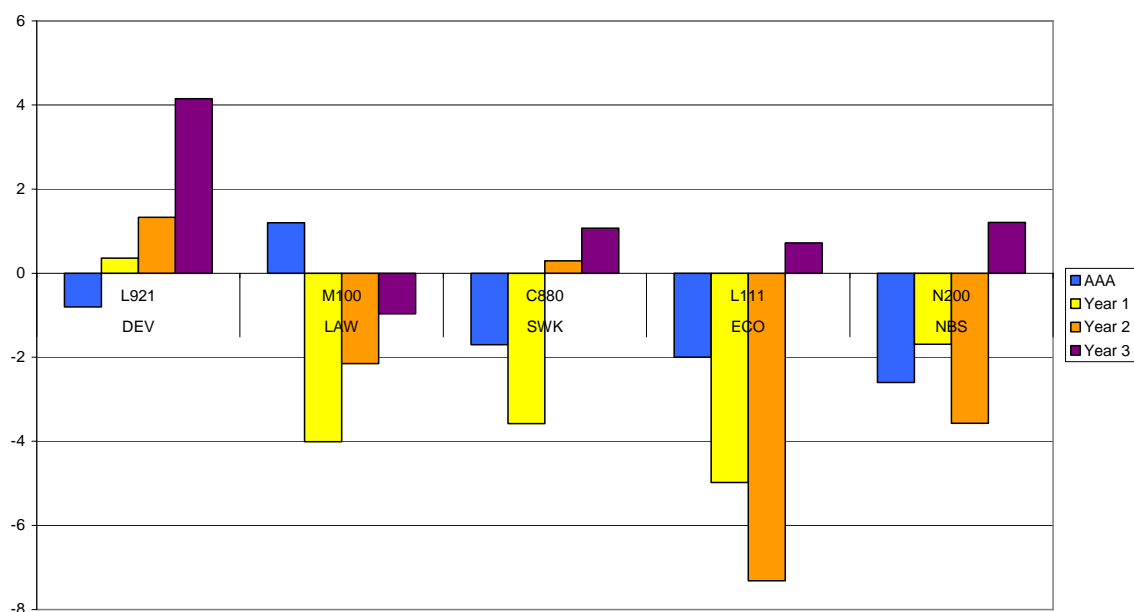
HUM2: Entry score, Year 1, Year 2, Year 3
NB: LLT T901 - Year 3 abroad



SCI: Entry score, Year 1, Year 2, Year 3
 NB: PHA and CHE are 4-year programmes



SSF: Entry score, Year 1, Year 2, Year 3



As with the AHP course-level data, the comparative information for Schools within Faculties needs to be considered locally. There is confirmation that the A-Level tariff is not the sole determinant of degree outcome in SSF, though there appears to be a stronger relationship within HUM. It is striking that LAW had an intake of students with higher A-Level results than other SSF Schools but with a lower final average degree result. Is it the composition of the A-Levels taken that is important? It is also striking that the pattern of achievement within courses is very different; for example, within SSF the DEV programme looks very different to the others. Does this represent different student support cultures within Schools, such as induction programmes, academic advising and skills training or is it a consequence of the challenges of the different curricula?

Work for the review of assessment in the last three years has shown that total tariff scores are not always a reliable measure of the potential of individual students, nor a useful tool for examining student performance and progression. Part 2 uses "Tariff Quality" which has been developed internally to further the work for the review of assessment.

PART 2: Students completing undergraduate study in 2008/9

2.1 Introduction

A data set has been created for undergraduate finalists completing study in the 2008/9 academic year. This is a different set of students from those commencing study in 2006/7 which was the focus of the first part of this report. The table below shows the number of finalists in the data set from each School along with the number of those cases for whom A-Level grades are held on SITS. Differences between the two columns of numbers occur due to the diversity of educational backgrounds on entry and the number of students starting earlier than 2006/7 either because they completed a 4-year degree programme or have deferred entry or intercalated.

School	Number of finalists	Number of finalists with A-Level detail
AHP	92	65
AMS	69	9
ART	39	36
BIO	123	87
CHE	24	2
CMP	87	58
DEV	61	32
DRA	40	37
ECO	82	66
ENV	138	68
FTV	56	39
HIS	166	146
LAW	137	91
LCW	146	128
LLT	31	3
MTH	52	39
MUS	25	16
NBS	200	135
PHA	69	0
PHI	52	45
PSI	117	95
SWP	96	40
TOTAL	1902	1237

2.2 Correlation between A-Levels on entry and attainment

The A-Level grades achieved on entry, excluding General Studies, were given their accepted tariff values and the total was divided by the number of subjects studied. The measure is referred to as "Tariff Quality". General differences in student performances have been seen in UEA data when comparing students with at least two A grades at A-Level with students with mostly B grades, C grades, and so on. This difference has been detected in the tariff measure insofar as there appears to be a difference between a total tariff of, for example, 220 when it is comprised of CCD (80 + 80 + 60) compared to AB (120 + 100). The resulting "Tariff Quality" scores in this example are 73.33 and 110, respectively.

The Tariff Quality scores were correlated with the Award Mark calculated in SITS. The correlation values were used to create a rank order list with 1 being the highest correlation between A-Level and Award Mark (a proxy for attainment), and 19 being the lowest. It should be noted that CHE, LLT and PHA could not be included due to the very small number of A-Level grades available. The data set was then split by gender and the correlation test repeated so that the rank order lists for males and females could be compared. The gender split by School is not always in proportion to the University ratio of 60:40 (females : males). For example, CMP has a high proportion of males and AHP and SWP have high proportions of females. Splits by other groupings such as ethnicity, age, disability and age are even more uneven and have not been attempted but might be of interest to individual Schools (see Section 2.4 which offers Schools their data sets for internal use).

Rank (UEA)	School
1	MUS*
2	NBS**
3	PHI**
4	ENV**
5	CMP**
6	LCW**
7	LAW**
8	SWP**
9	AHP**
10	FTV*
11	HIS**
12	AMS
13	PSI**
14	BIO**
15	ECO**
16	ART
17	DRA
18	MTH
19	DEV

Rank (Male)	School
1	ART
2	LCW**
3	ENV**
4	NBS**
5	PHI**
6	FTV*
7	CMP**
8	LAW**
9	AHP
10	AMS
11	PSI**
12	HIS**
13	DEV
14	DRA
15	ECO
16	MUS
17	BIO
18	SWP
19	MTH

Rank (Female)	School
1	MUS
2	NBS**
3	PHI
4	ENV*
5	CMP
6	LCW**
7	LAW**
8	SWP*
9	AHP
10	FTV
11	HIS**
12	AMS
13	PSI*
14	BIO**
15	ECO
16	ART
17	DRA
18	MTH
19	DEV

* = significant at 0.05

** = significant at 0.01

The correlation values are contained in **Appendix B**.

2.3 Links with NSS 2009

The rank order list of the relationship between A-Levels and Award Mark for the UEA was compared with the UEA NSS 2009 scores for each of the 22 main questions using the Spearman's rank order correlation test (two-tailed). Very few correlation figures were statistically significant. (Statistical significance is a test to determine the likelihood of a real mathematical relationship or if a figure could be calculated by chance). Other rank order lists have been created and tested against the NSS 2009 responses. These are listed below along with the main findings.

Rank order	Main finding
Relationship between A-Levels and Award Mark (highest to lowest) - UEA	0.504* correlation score with question 15 "The course is well organised and is running smoothly."
Relationship between A-Levels and Award Mark (highest to lowest) - males	0.707** correlation score with question 9 "Feedback on my work has helped me clarify things I did not understand."
Relationship between A-Levels and Award Mark (highest to lowest) - females	No significant relationships.
Number of students registered in a School (highest to lowest)	No significant relationships.
Percentage of widening participation students in a School (highest to lowest)	-0.570* correlation score with question 17 "I have been able to access general IT resources when I needed to."
Ratio of female : male students in a School (highest to lowest)	-0.483* correlation score with both question 3 and question 4: "Staff are enthusiastic about what they are teaching." "The course is intellectually stimulating."
Ration of female : male staff in a School (highest to lowest)	0.594** correlation score with question 6 "Assessment arrangements and marking have been fair."

* = significant at 0.05

** = significant at 0.01

2.4 Degree classification and progression

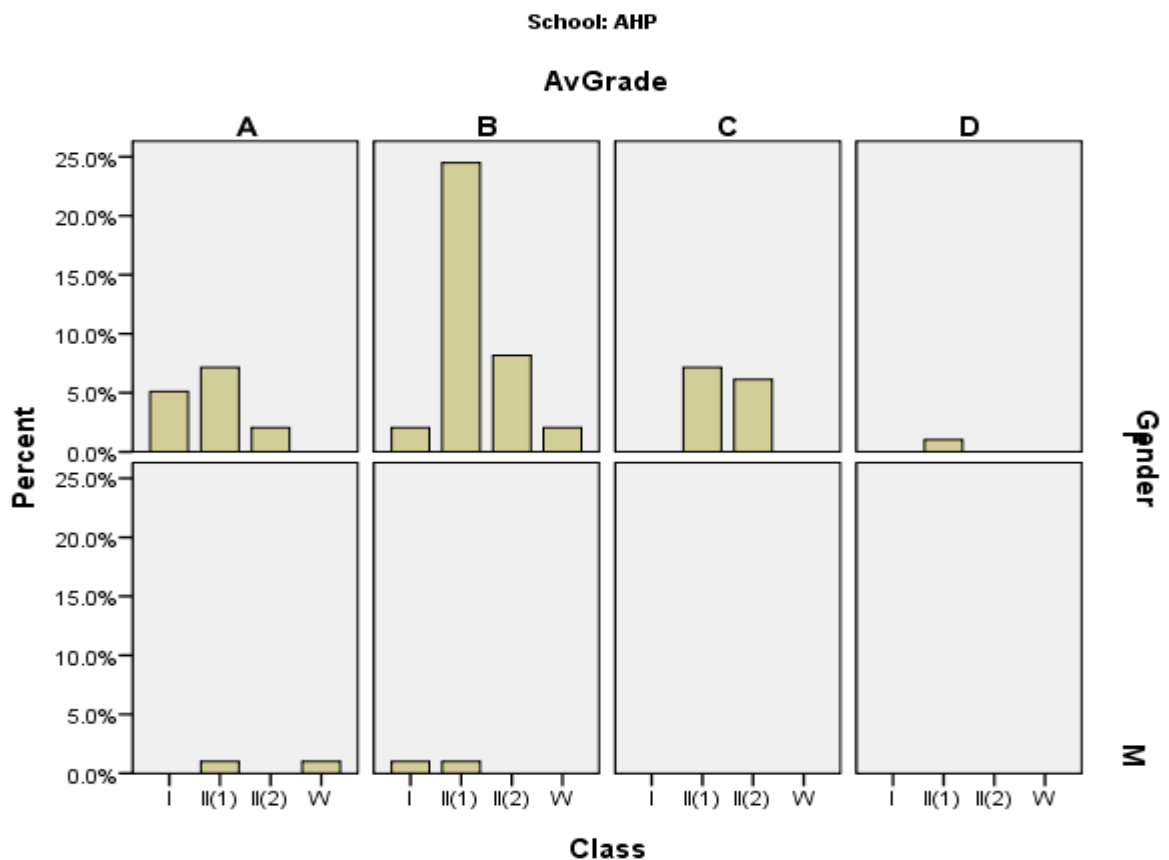
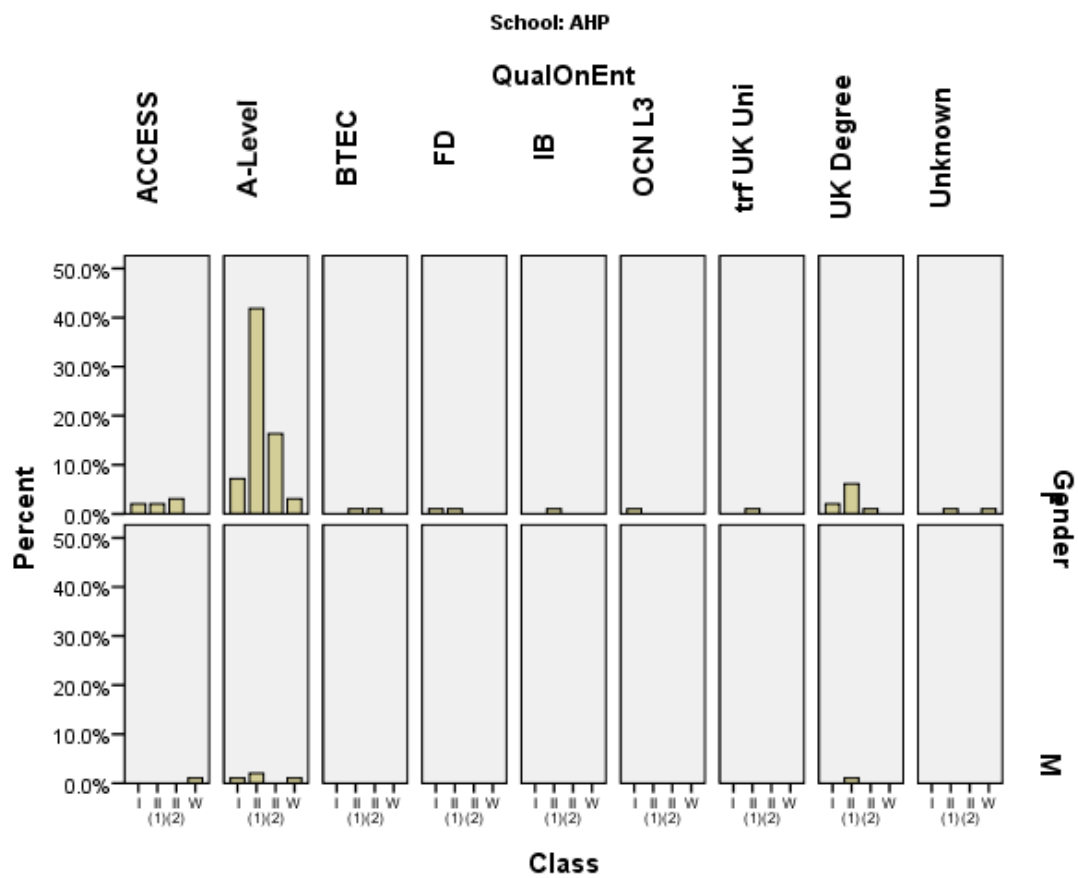
Each School (except EDU, MED and NAM where analysis has not been possible) will receive more detail on the classifications for degrees awarded in 2008/9 with attention given to qualifications on entry, A-Level detail and gender. A section providing detail on progression through the years has been included.

School data sets can be released for further analysis of particular interest. Some Schools have sufficient numbers of students from groups such as a particular country or qualification on entry that detailed analysis is of interest and can be tested for statistical significance. Requests for the release of data sets should be made to the Project Officer.

The HESA release in the spring will allow a fourth iteration of comparing degree classifications awarded by Schools with those awarded nationally (using JACS coding).

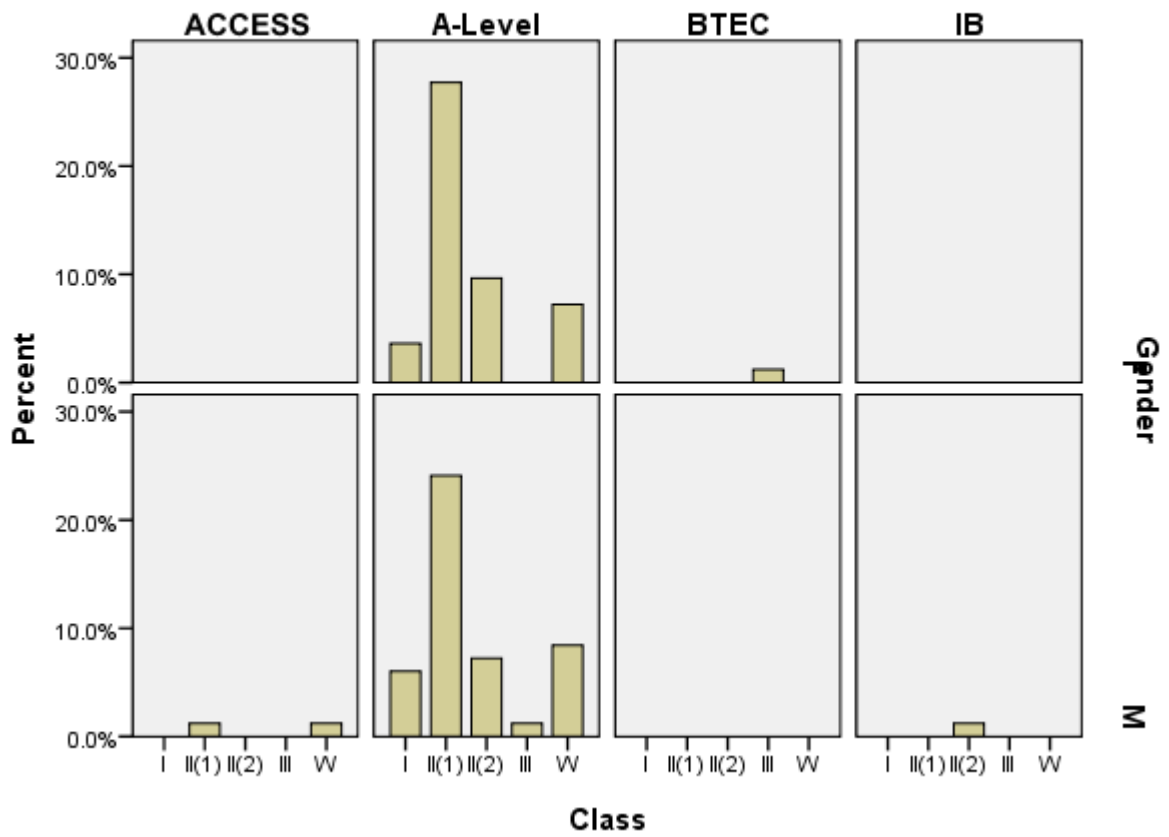
2.5 Degree classification and withdrawal

The following information has been created from a different data set and examines degree classifications and withdrawals. There are two graphs presented for each School in the study: the first graph compares degree classifications and withdrawals by qualification on entry, and the second compares degree classifications and withdrawals using Tariff Quality. (Tariff Quality has been translated into an A-Level grade which is labelled "AvGrade").



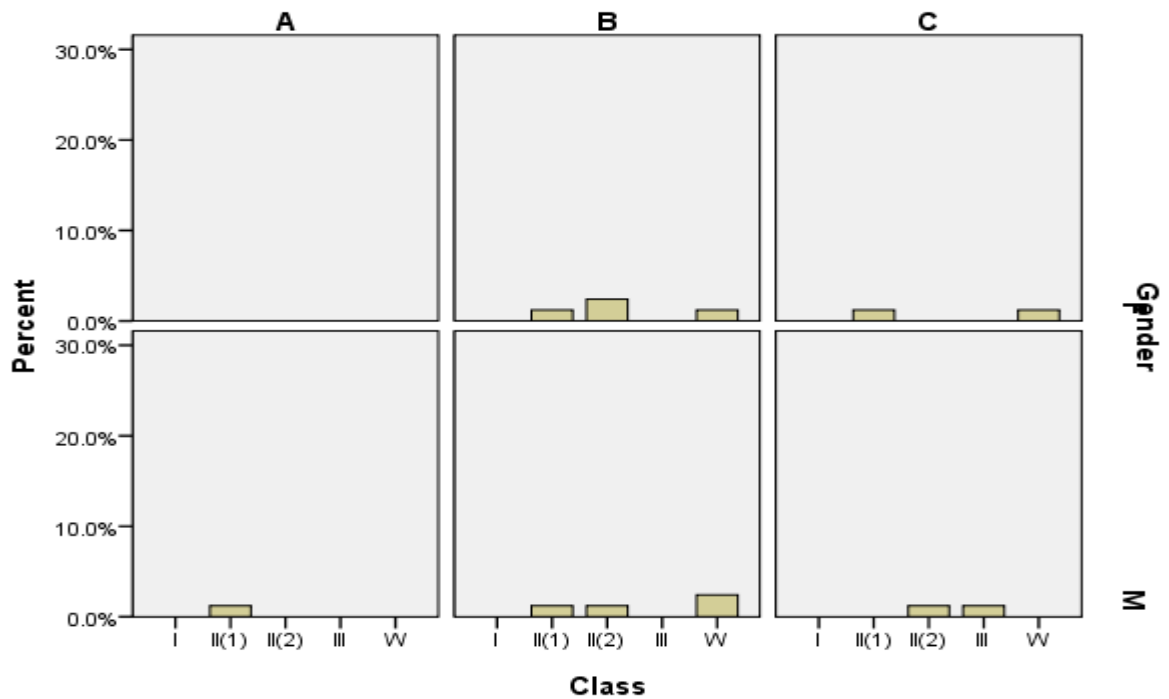
School: AMS

QualOnEnt



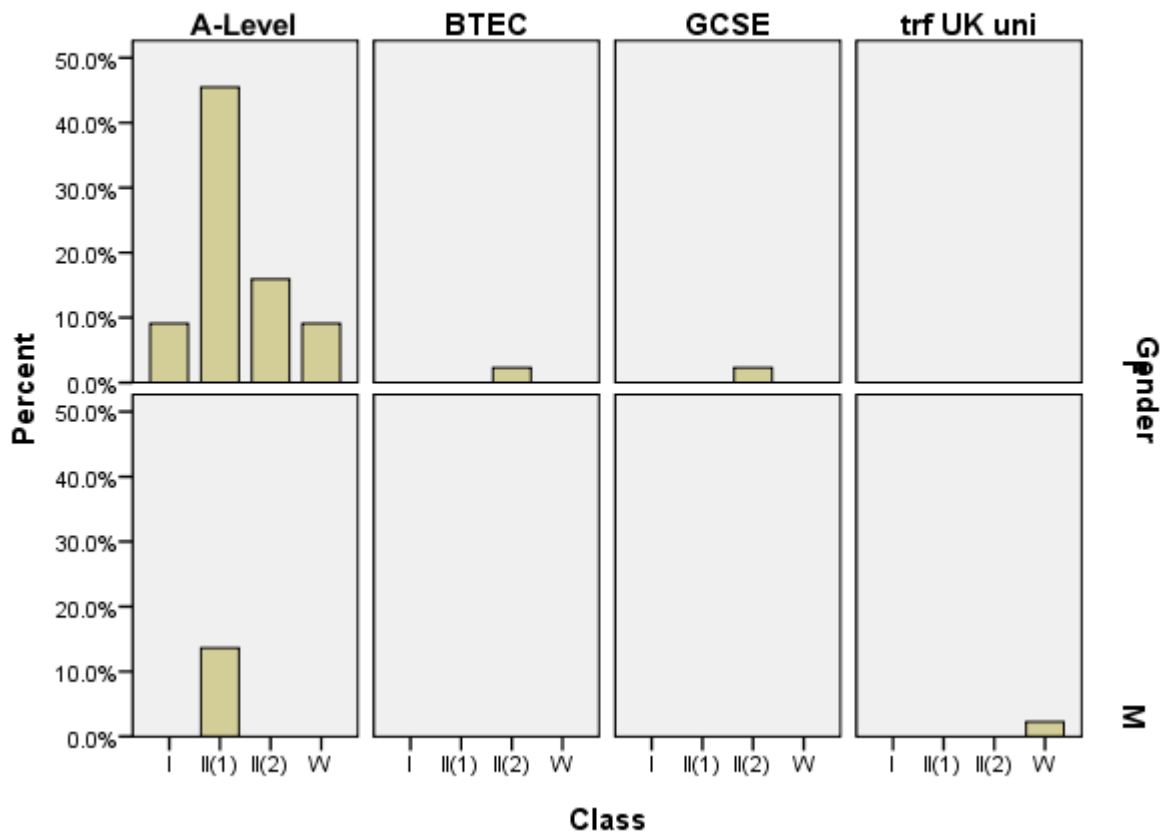
School: AMS

AvGrade



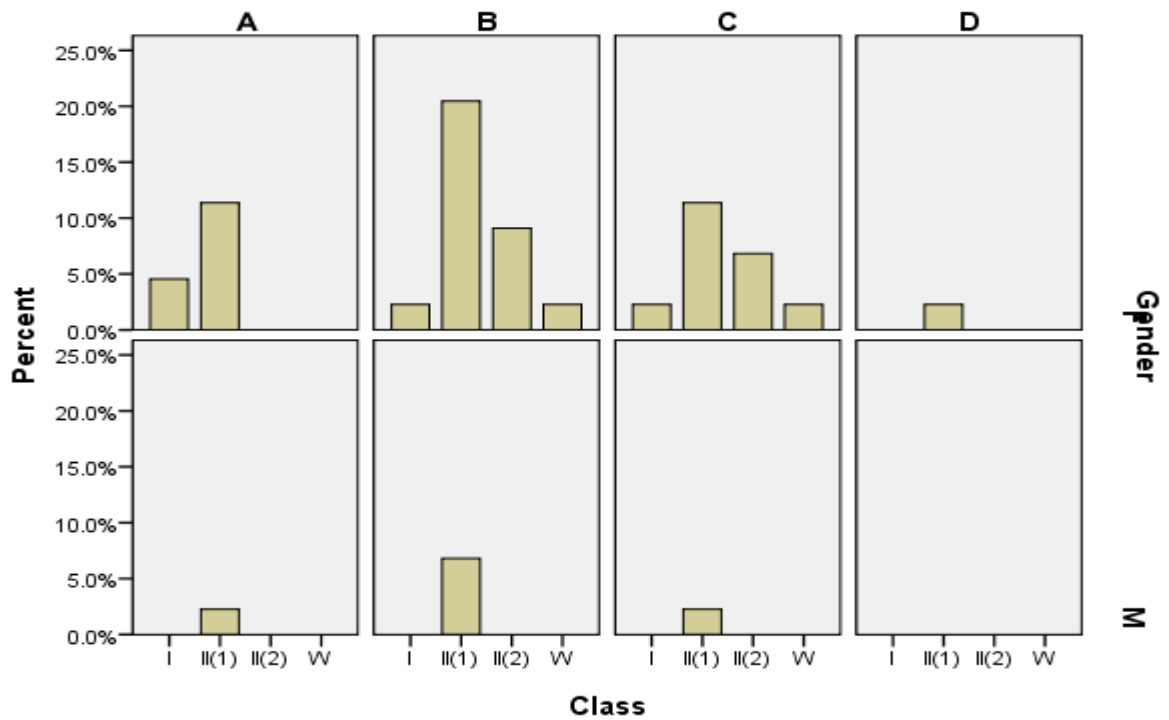
School: ART

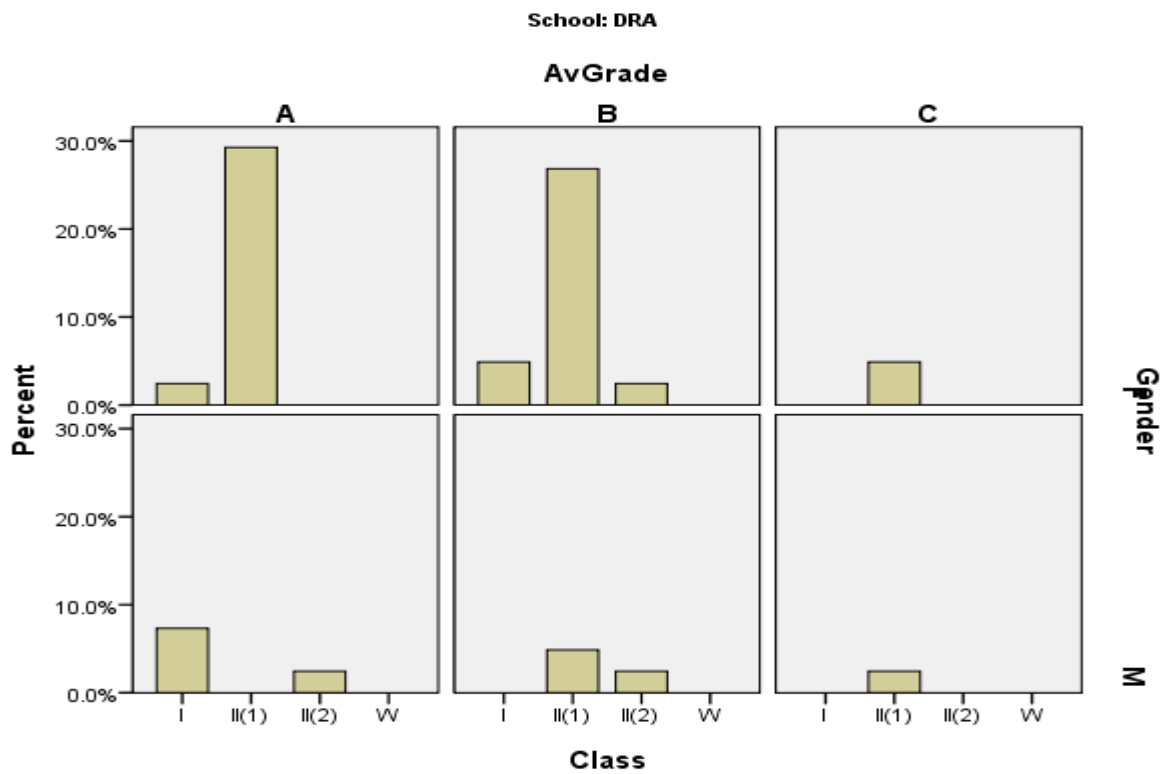
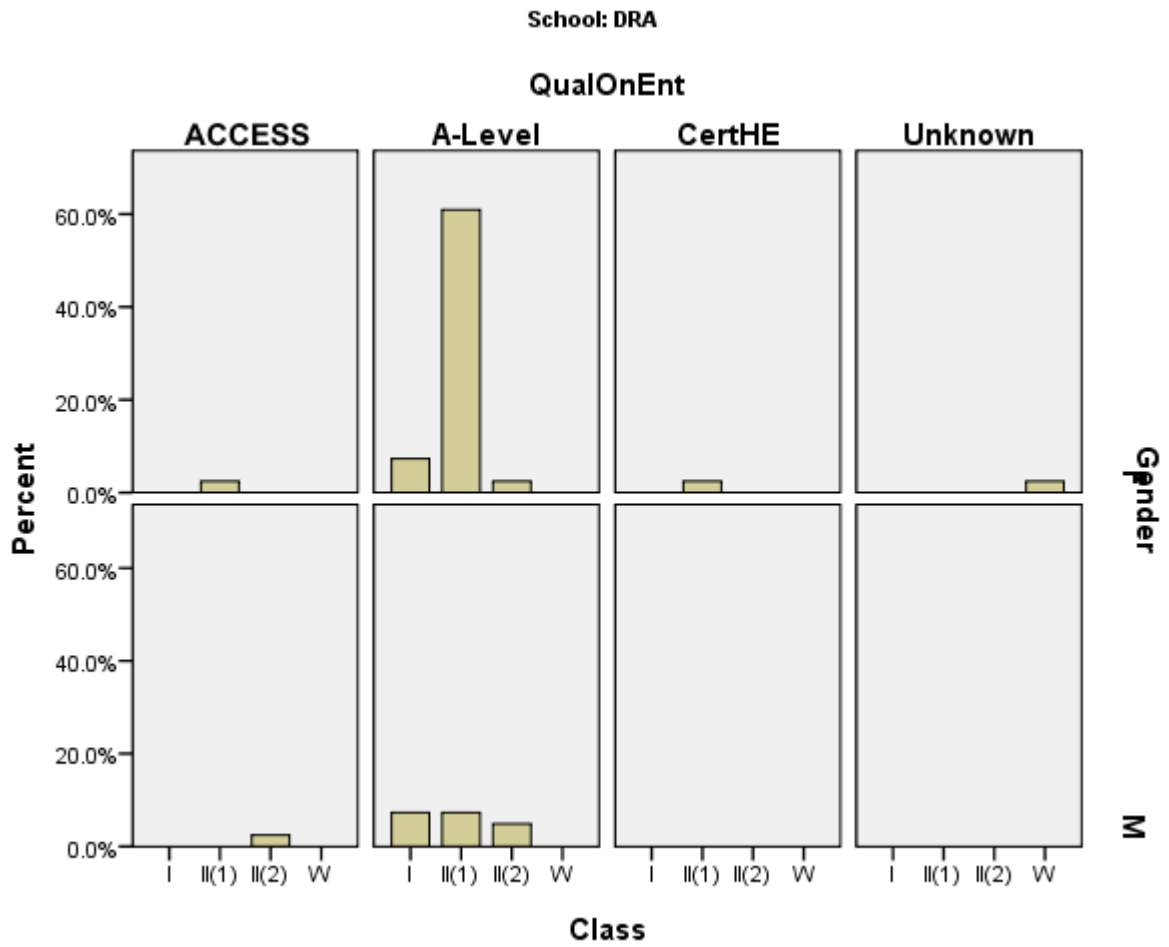
QualOnEnt



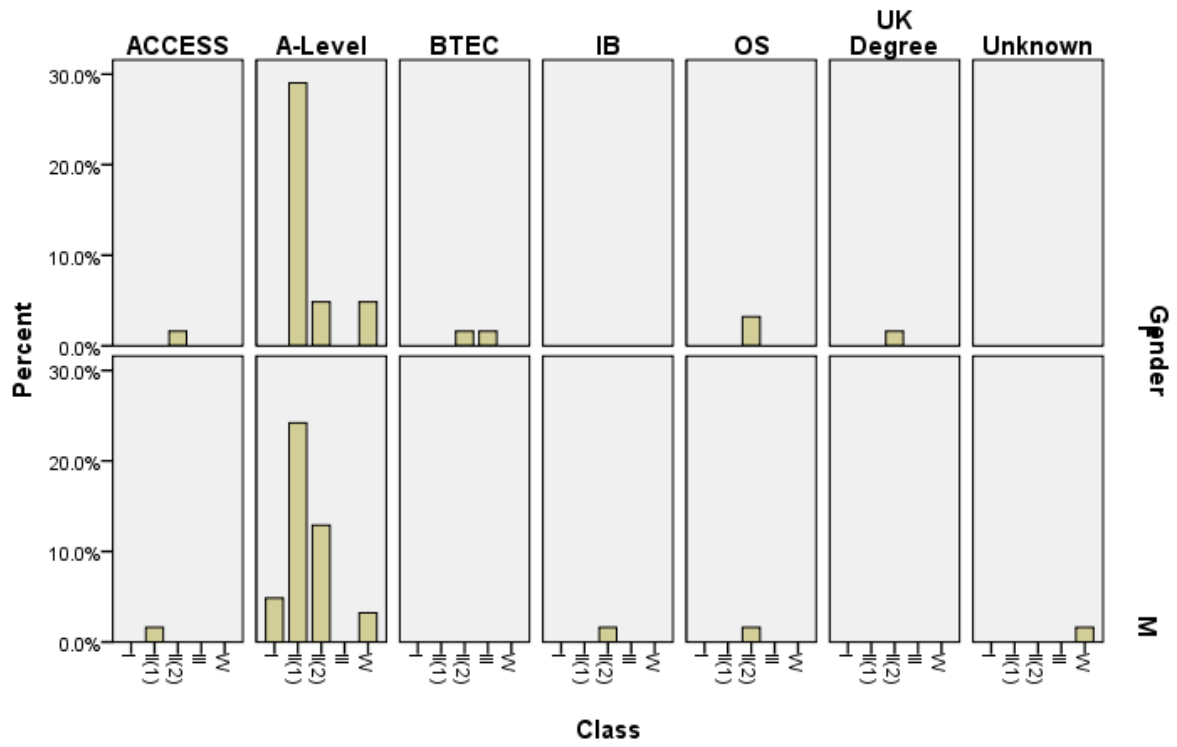
School: ART

AvGrade

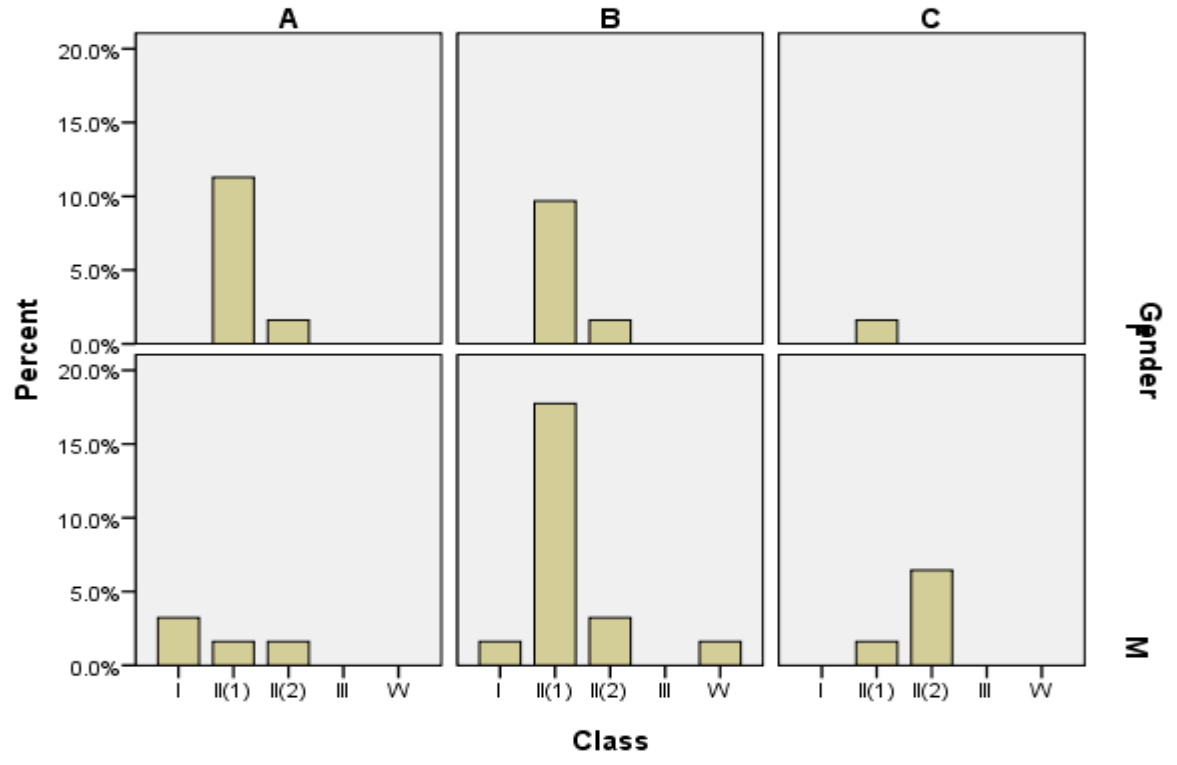


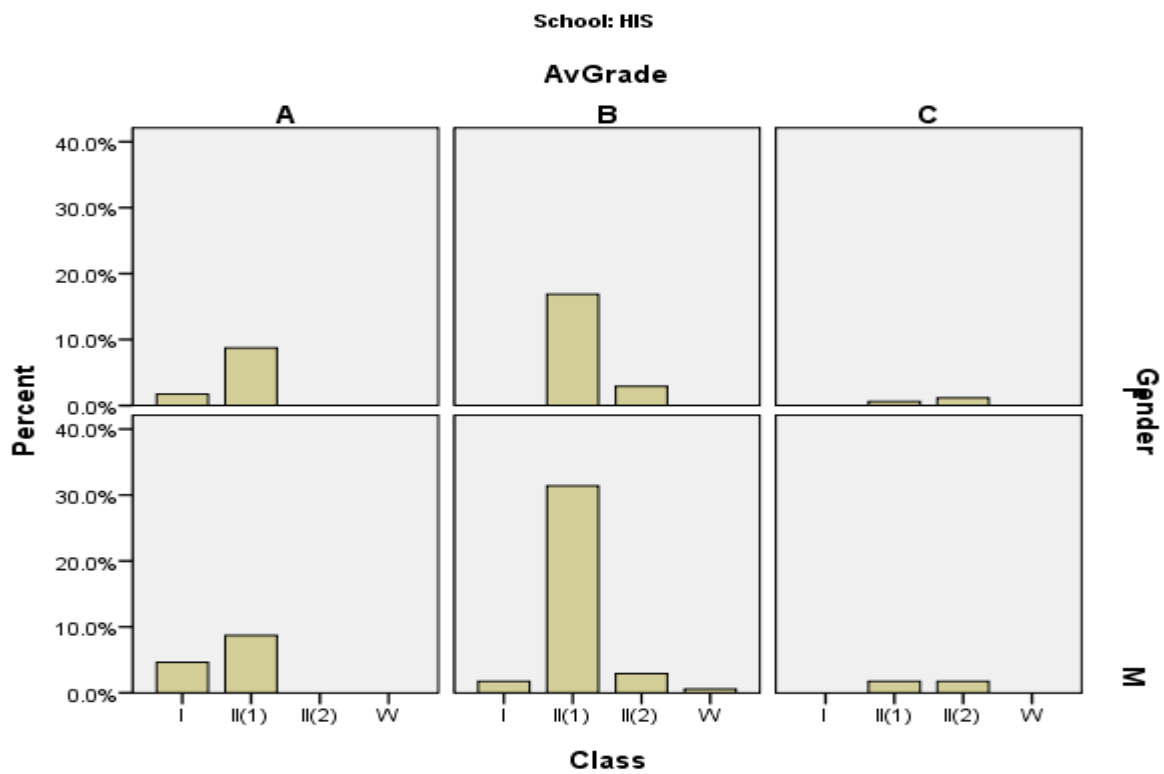
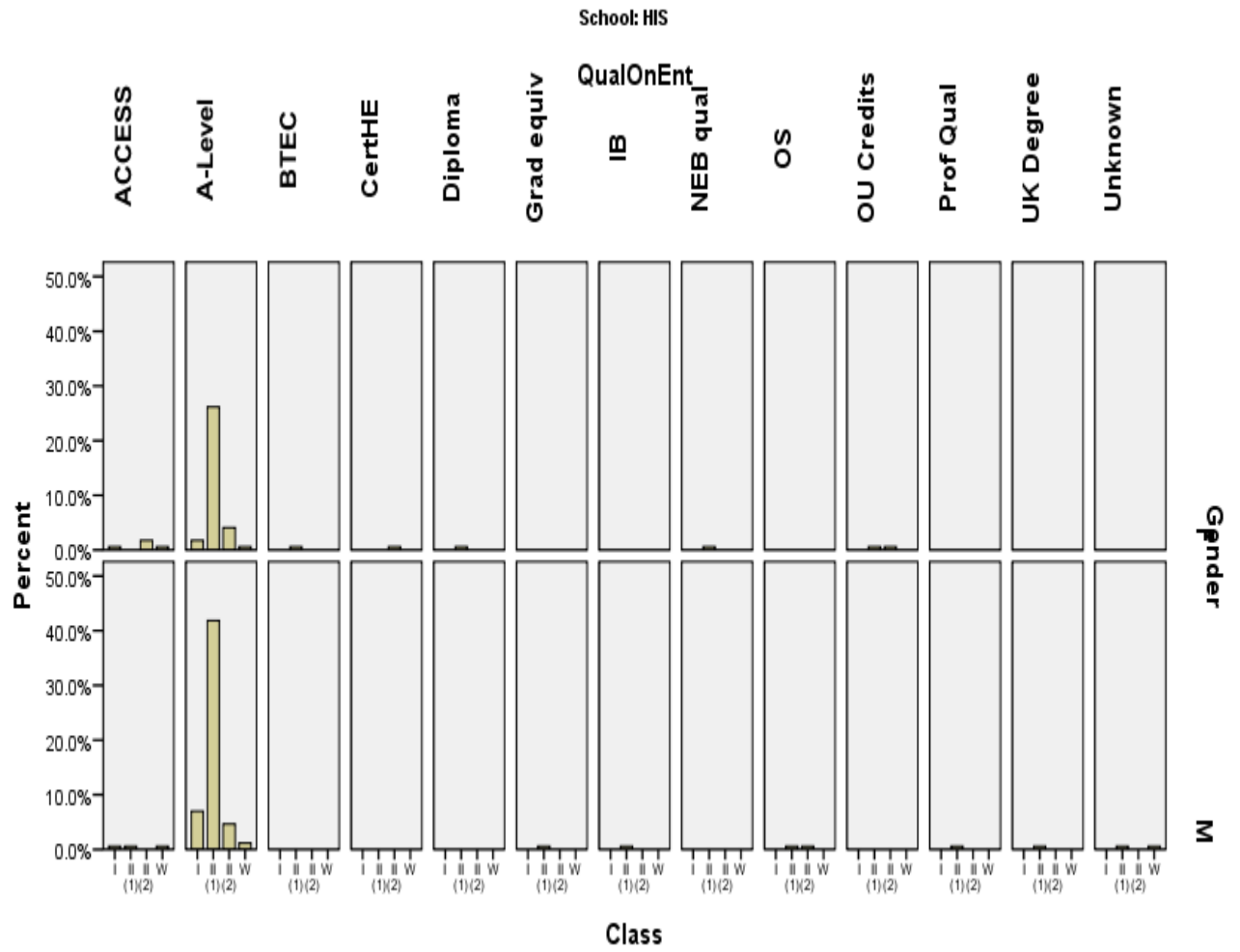


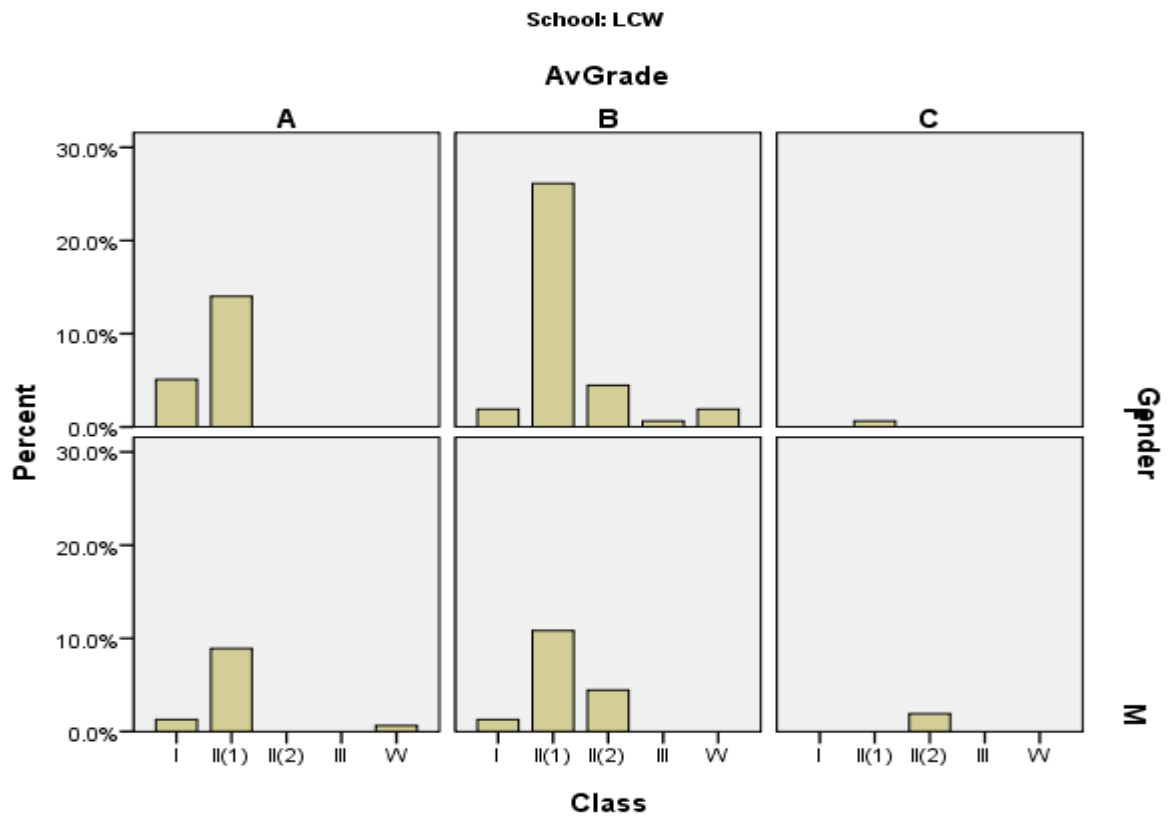
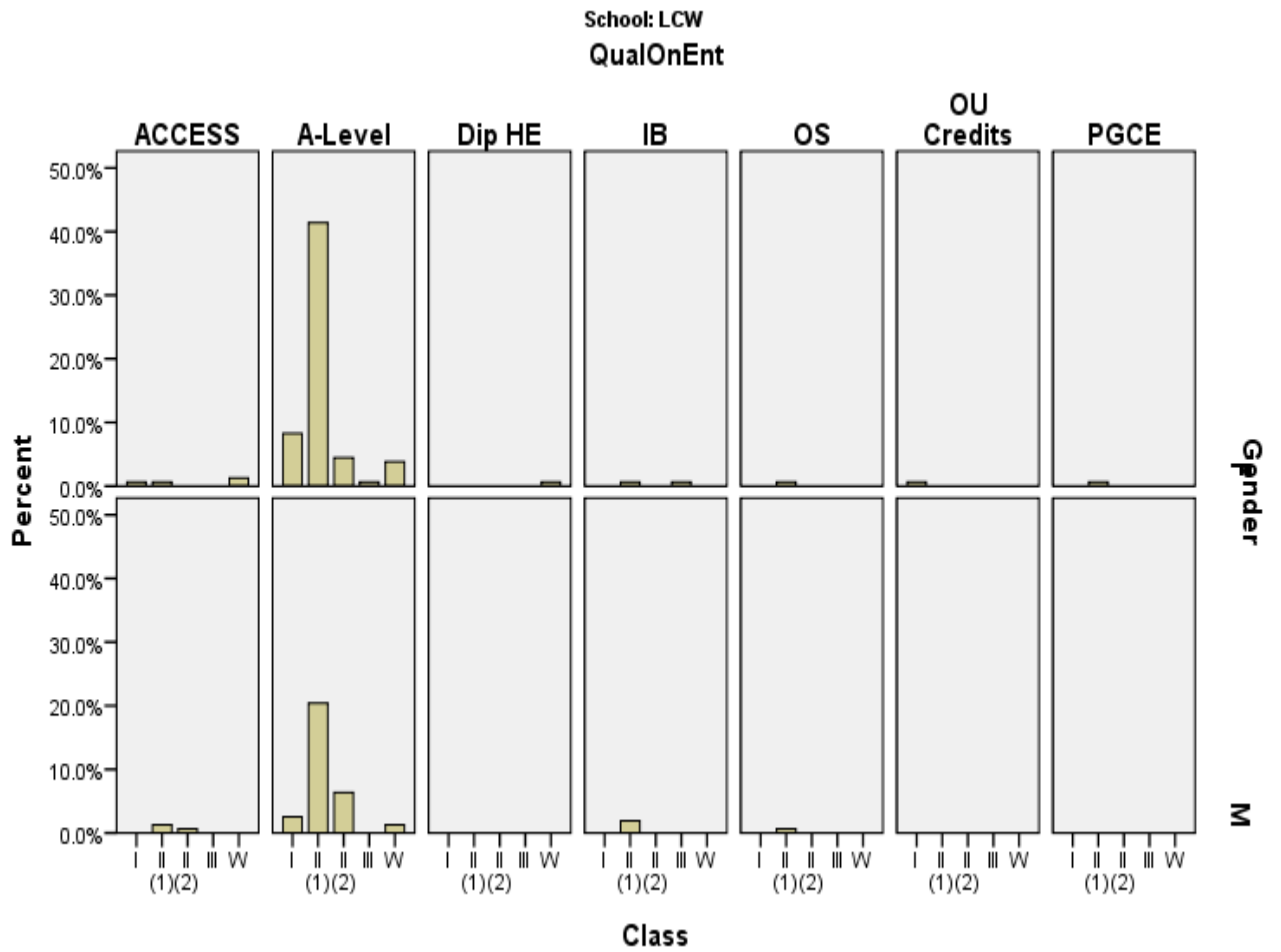
School: FTV
QualOnEnt



School: FTV
AvGrade

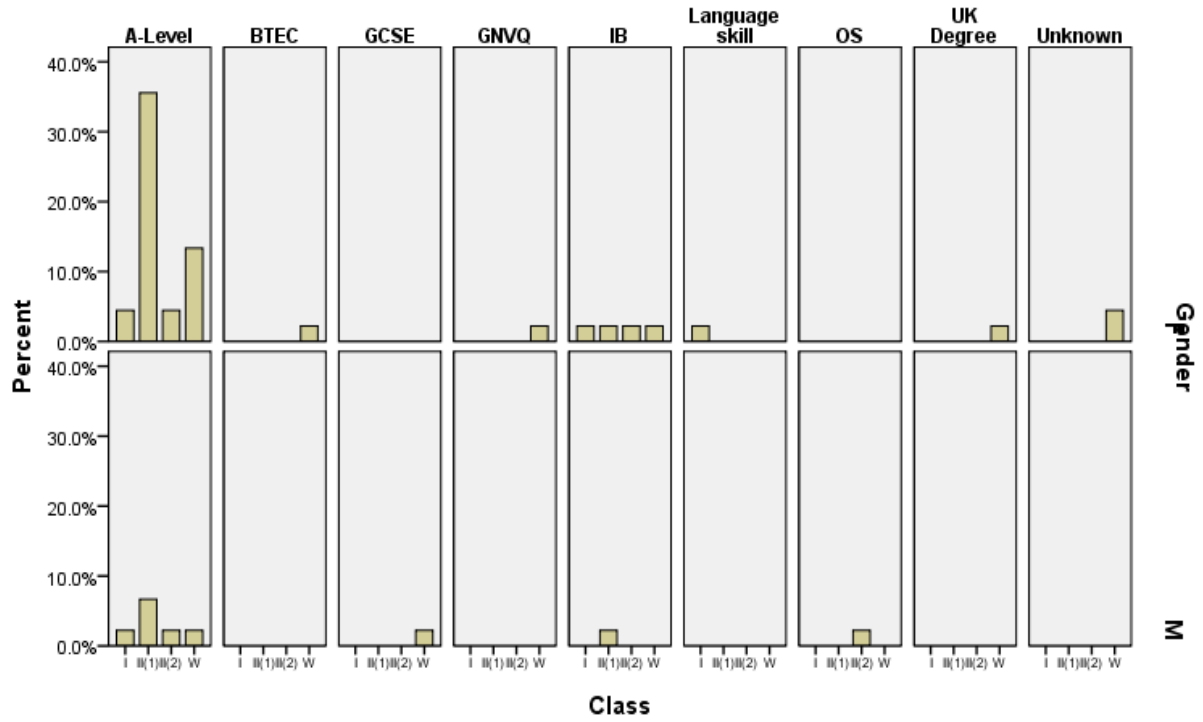






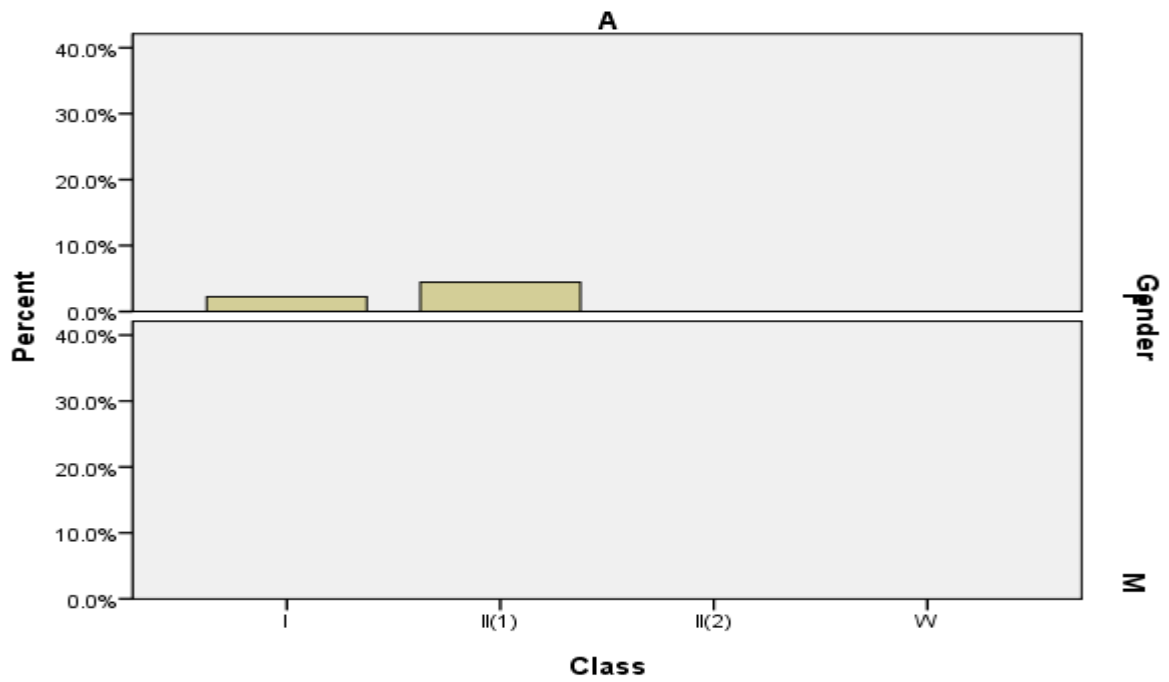
School: LLT

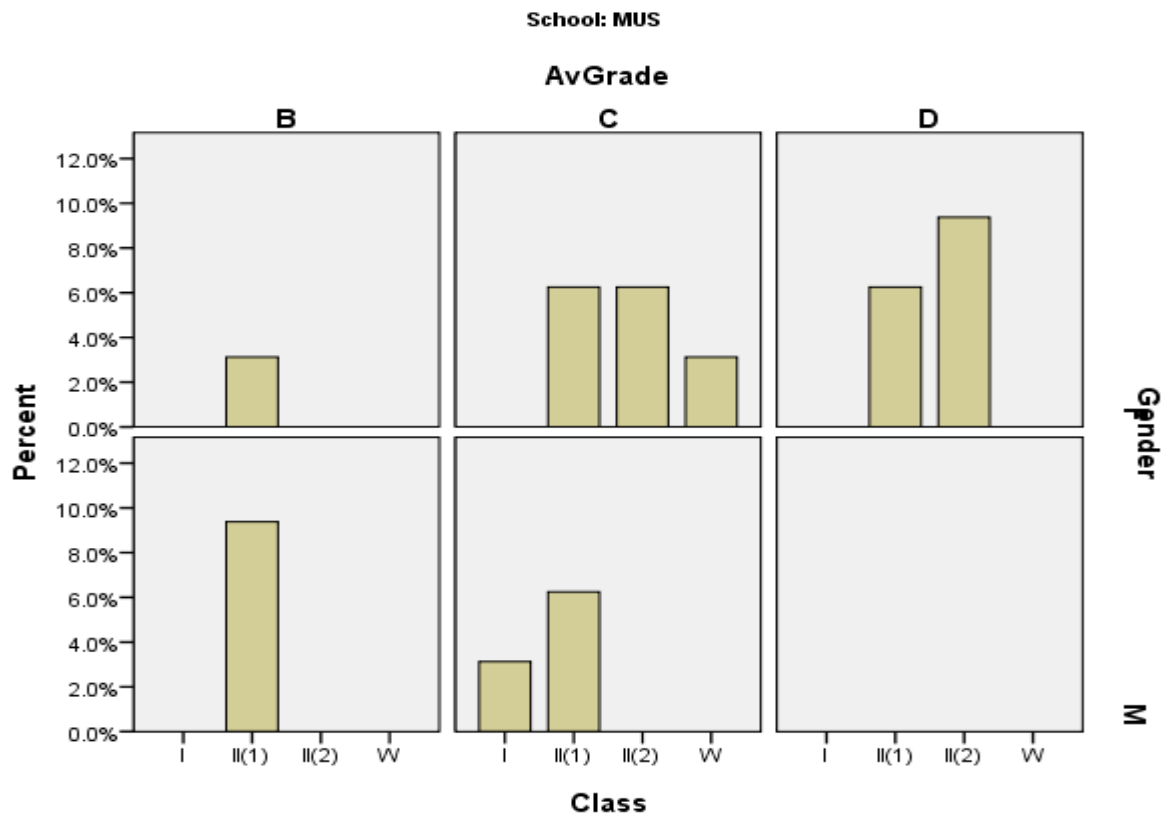
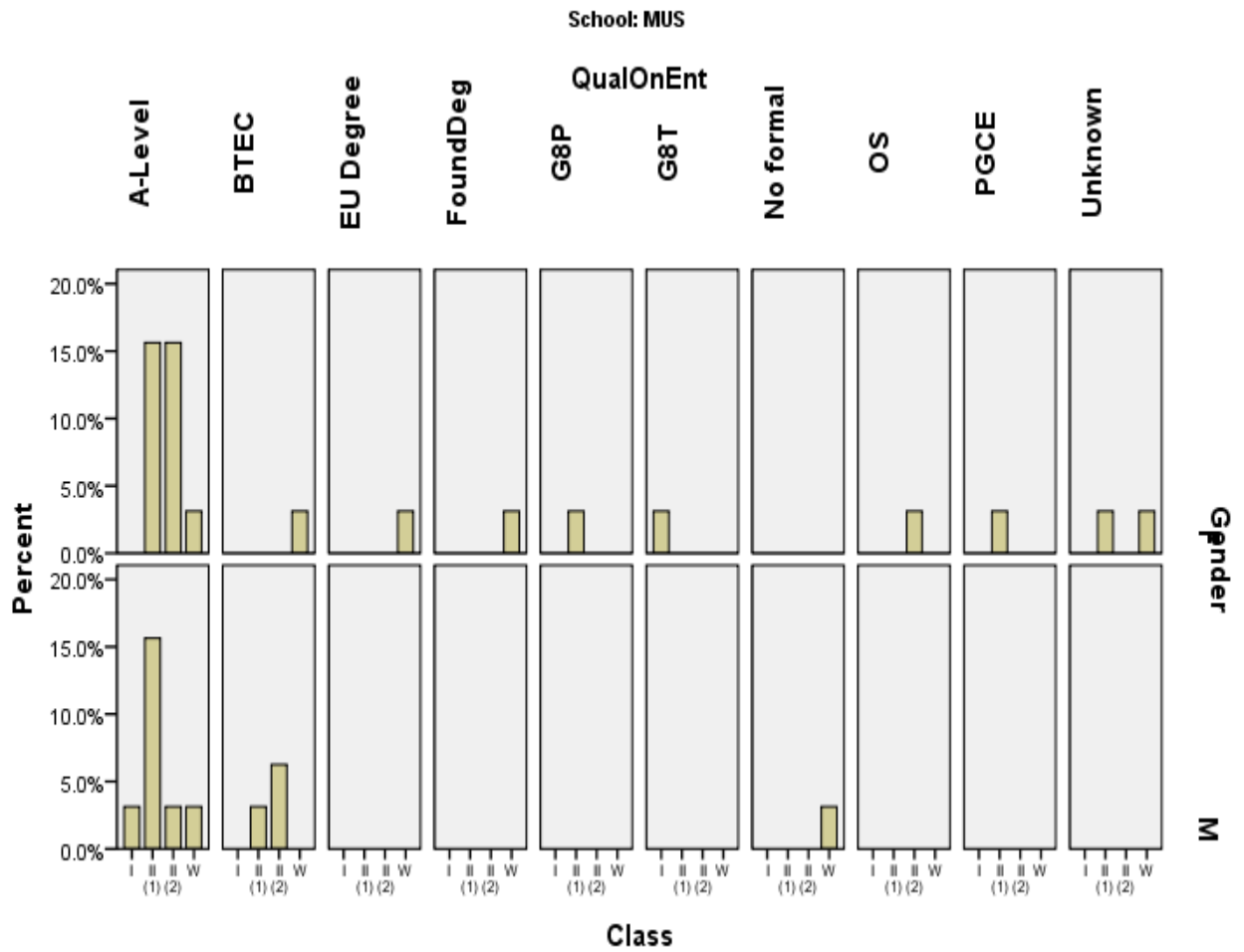
QualOnEnt

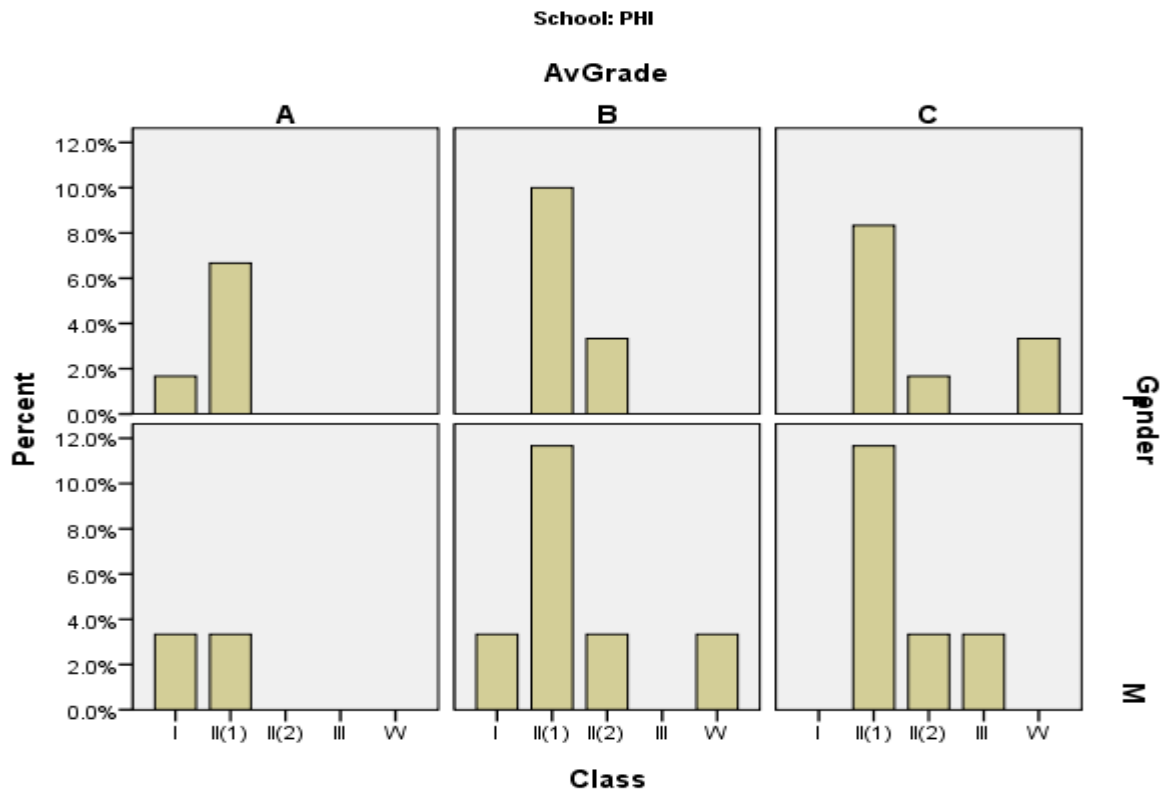
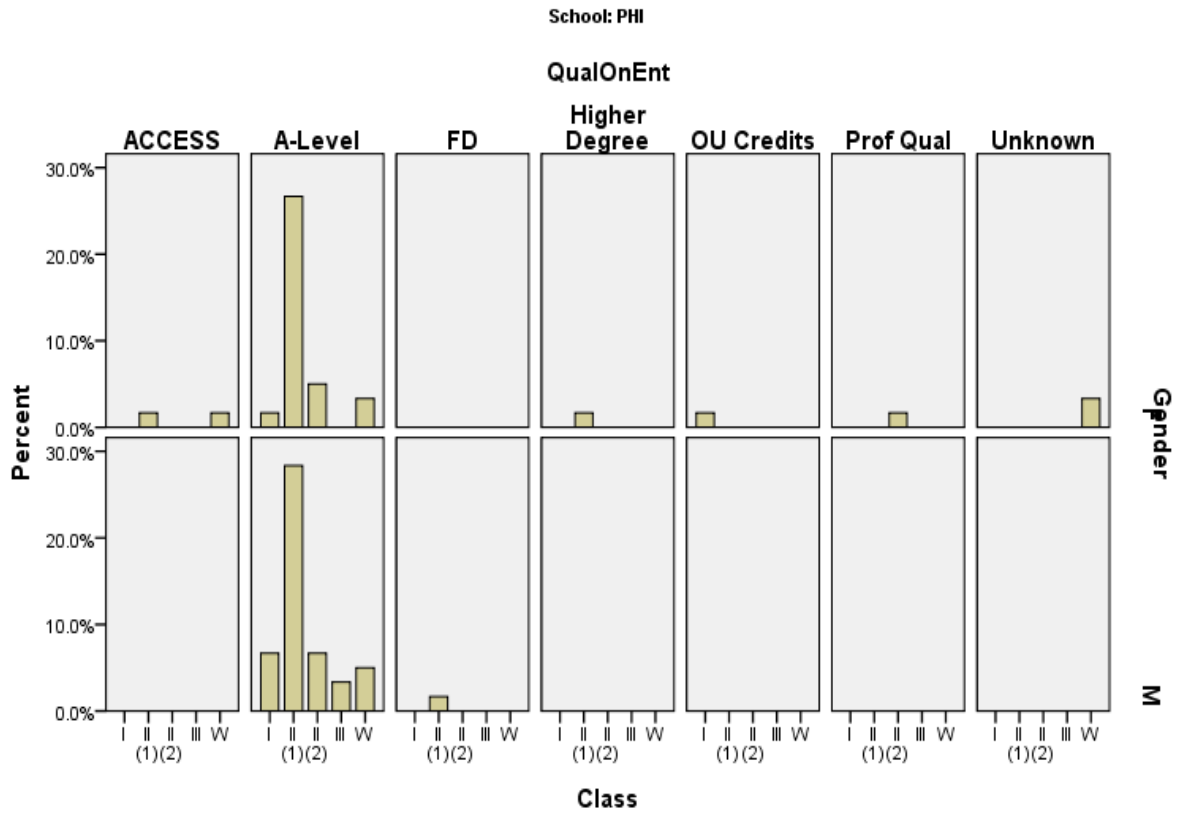


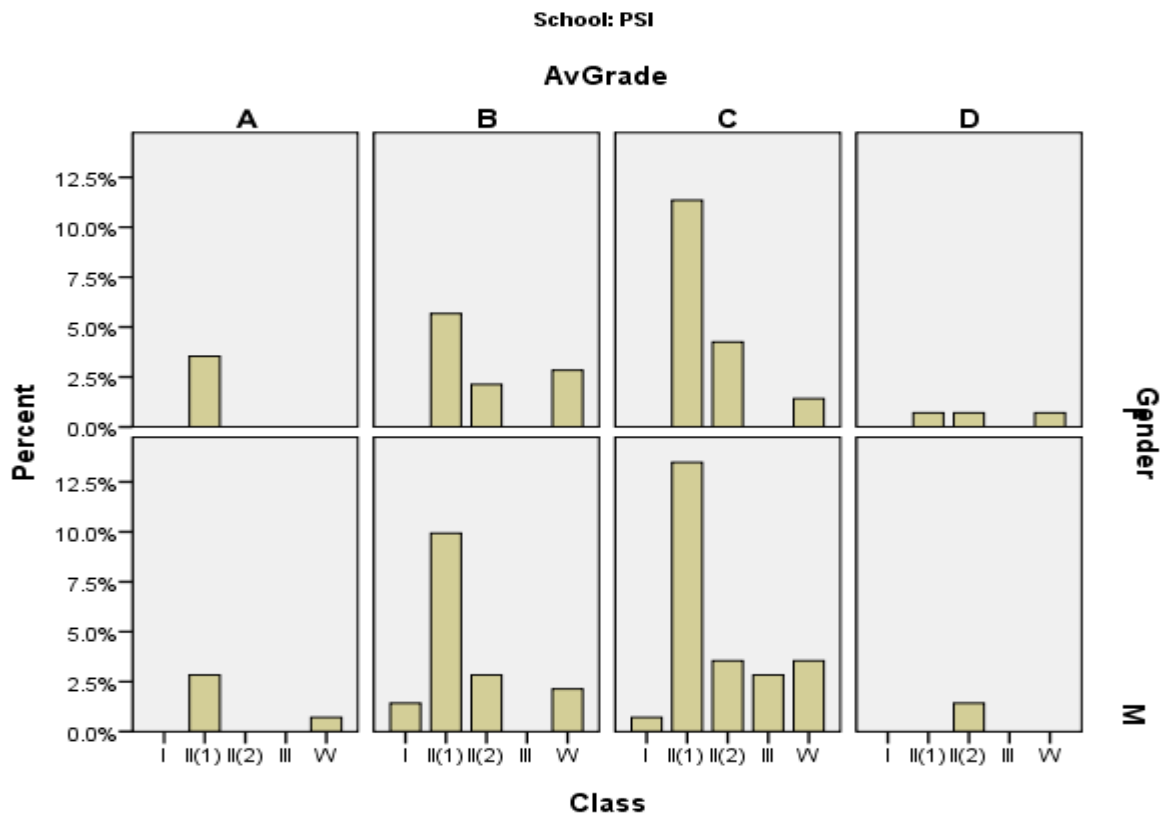
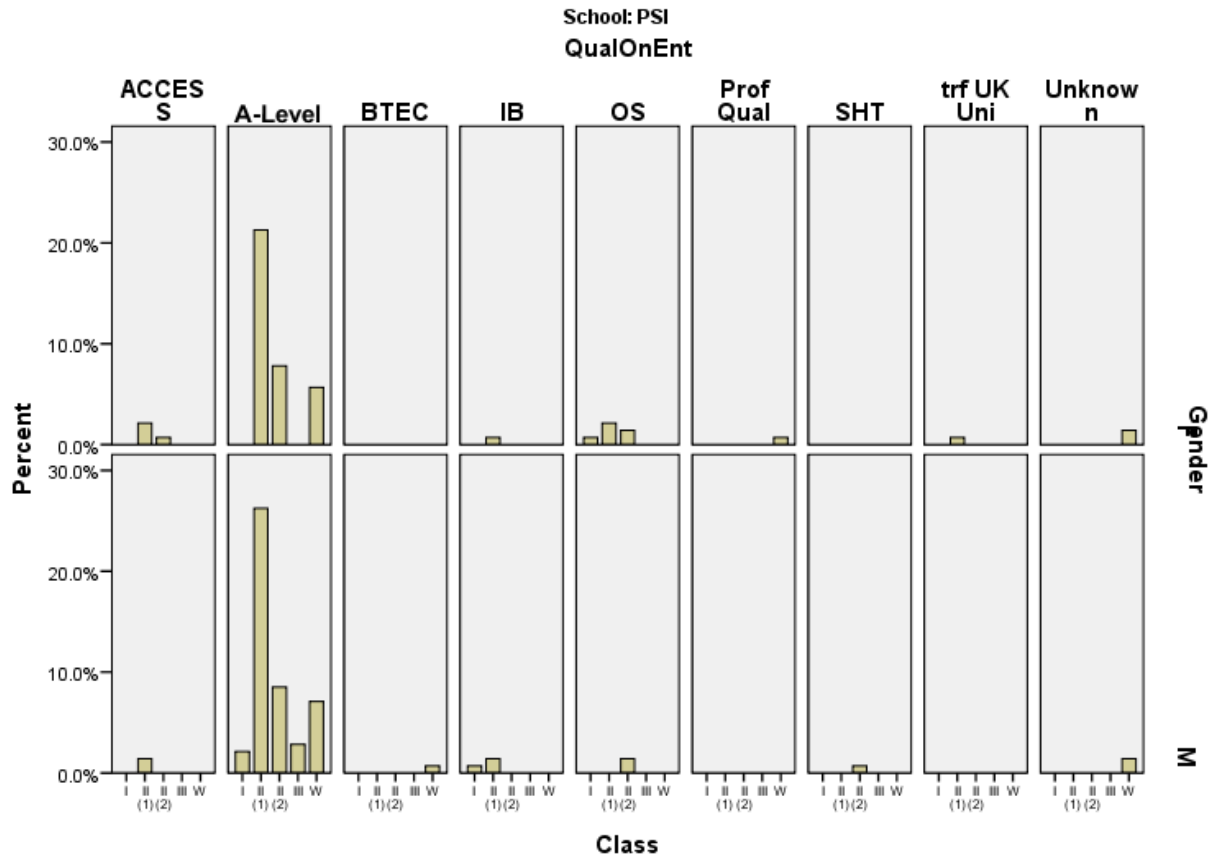
School: LLT

AvGrade

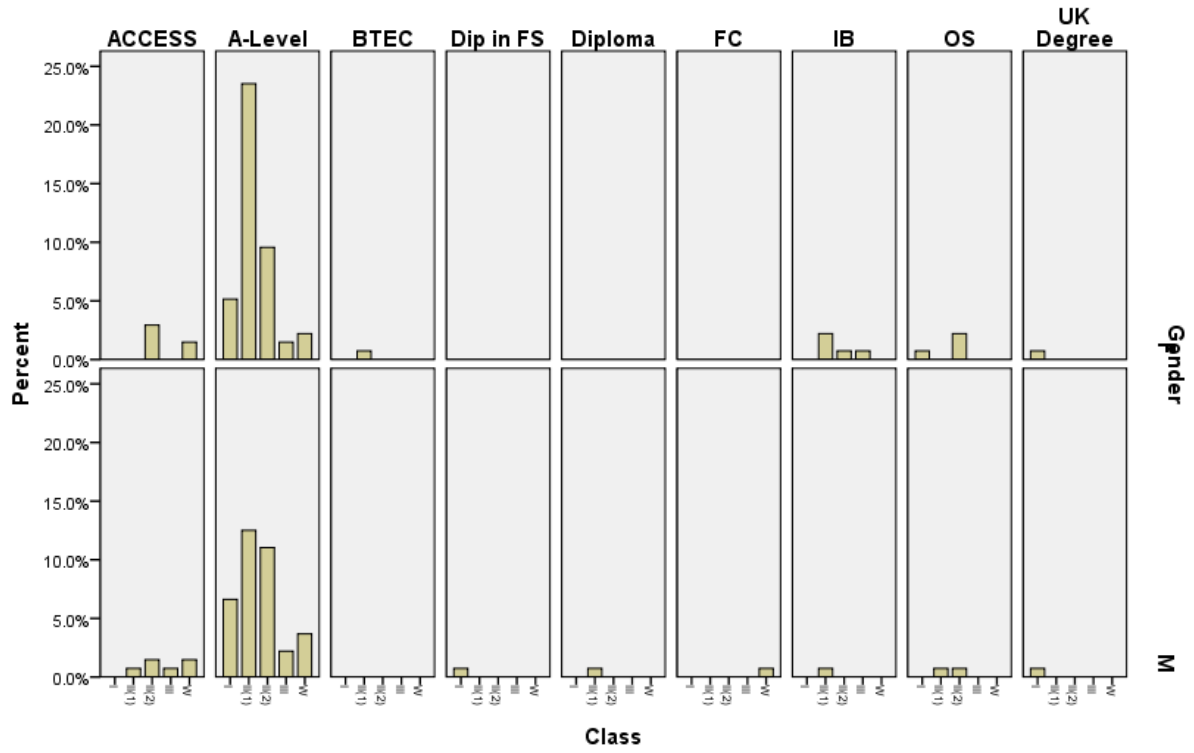






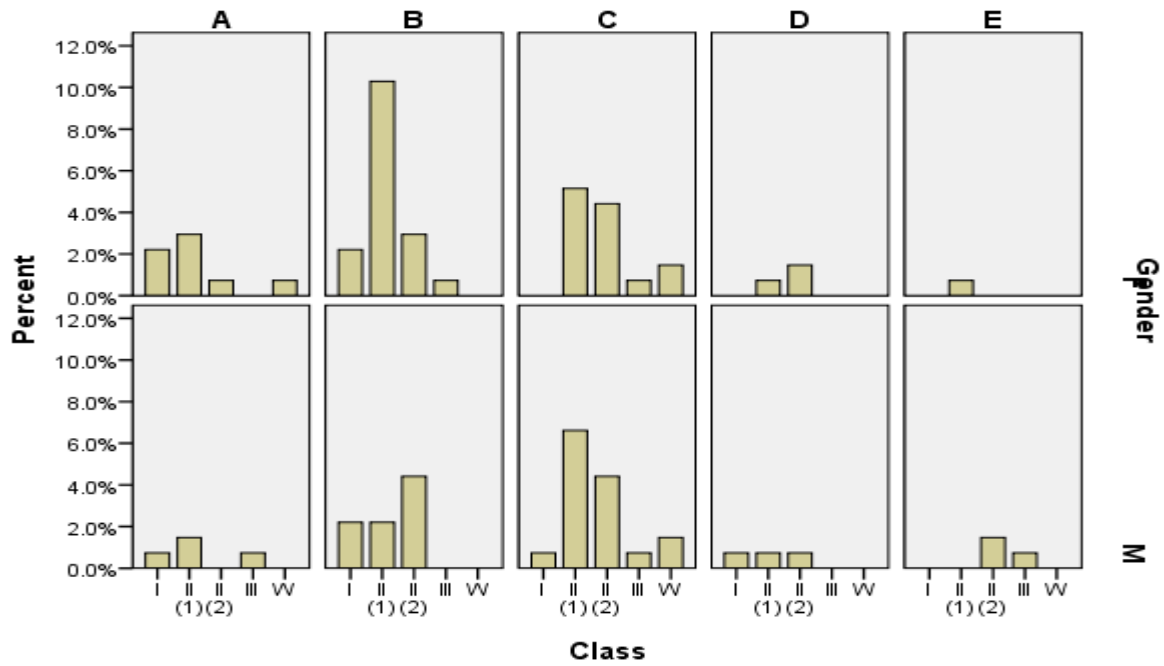


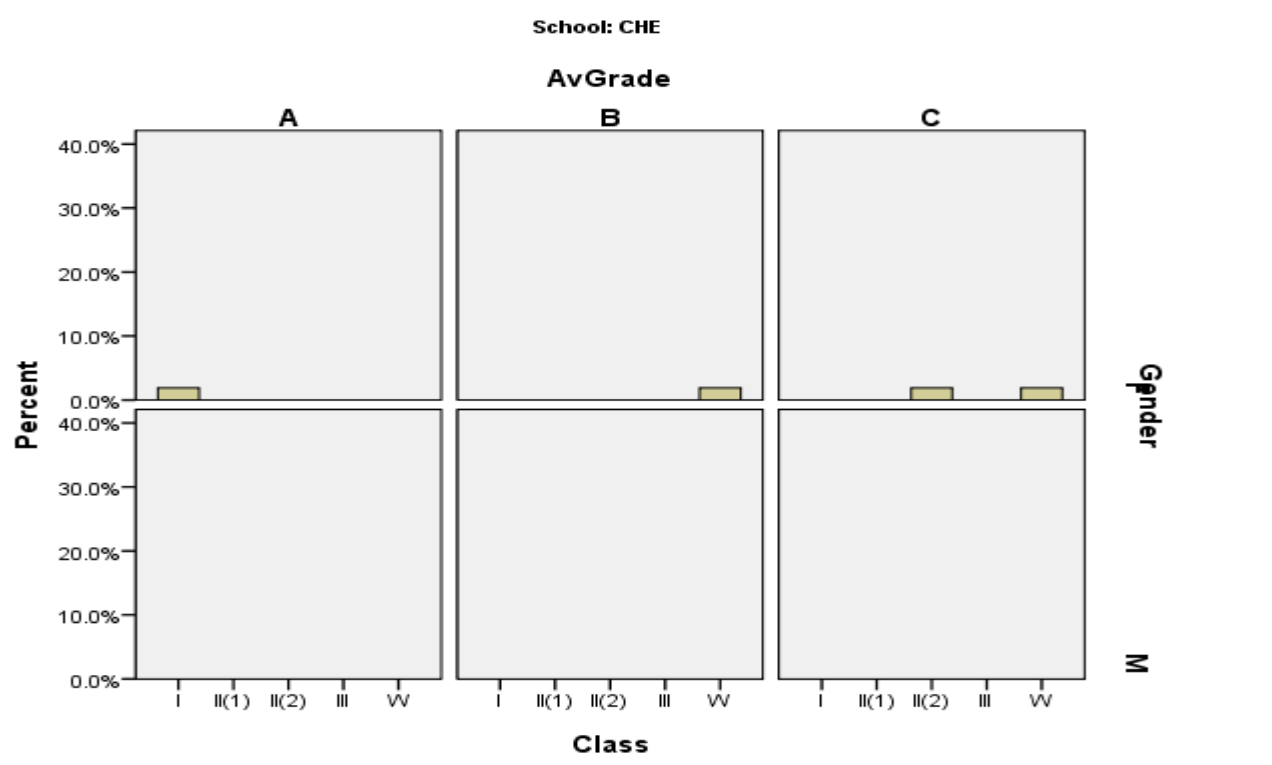
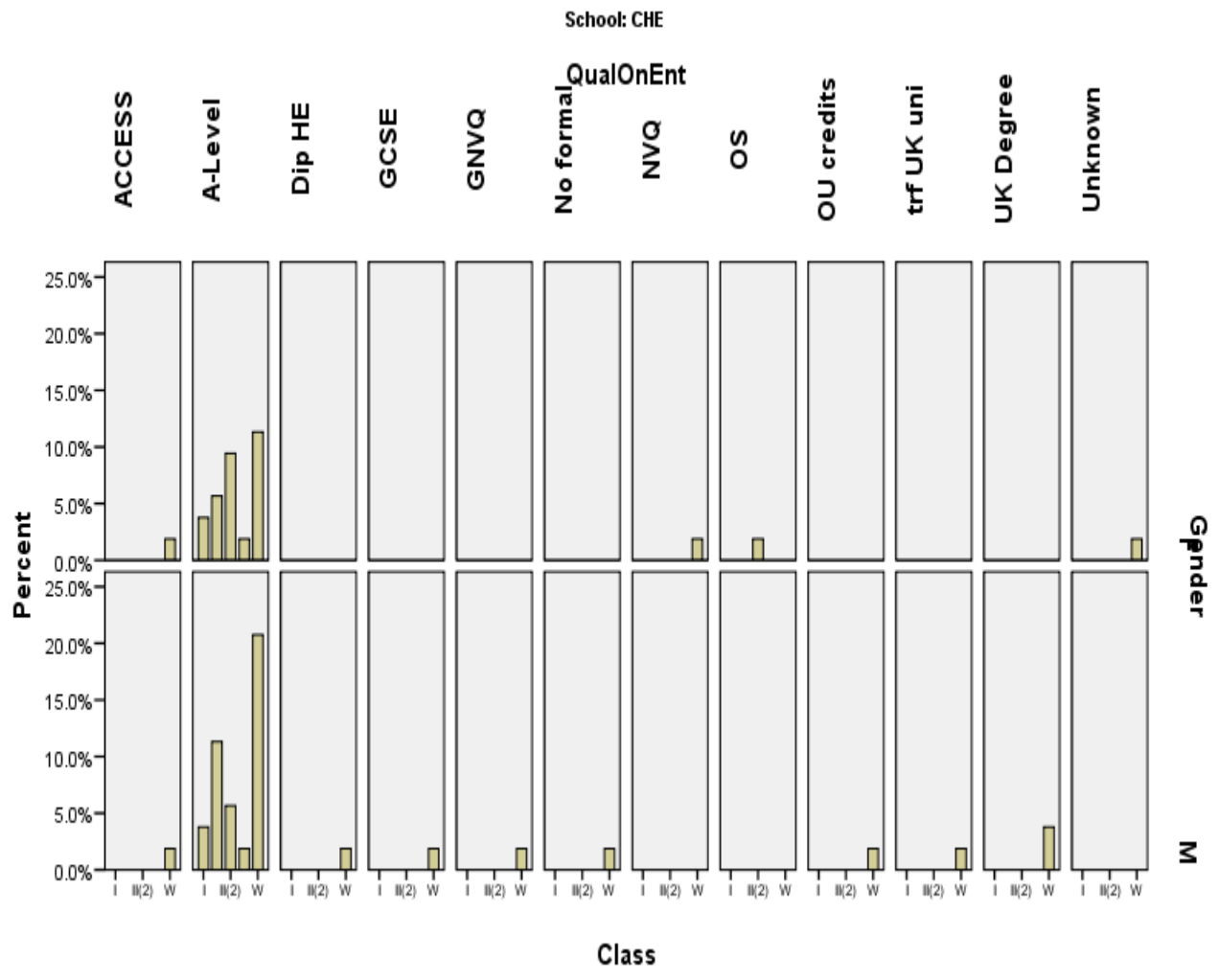
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QualOnEnt

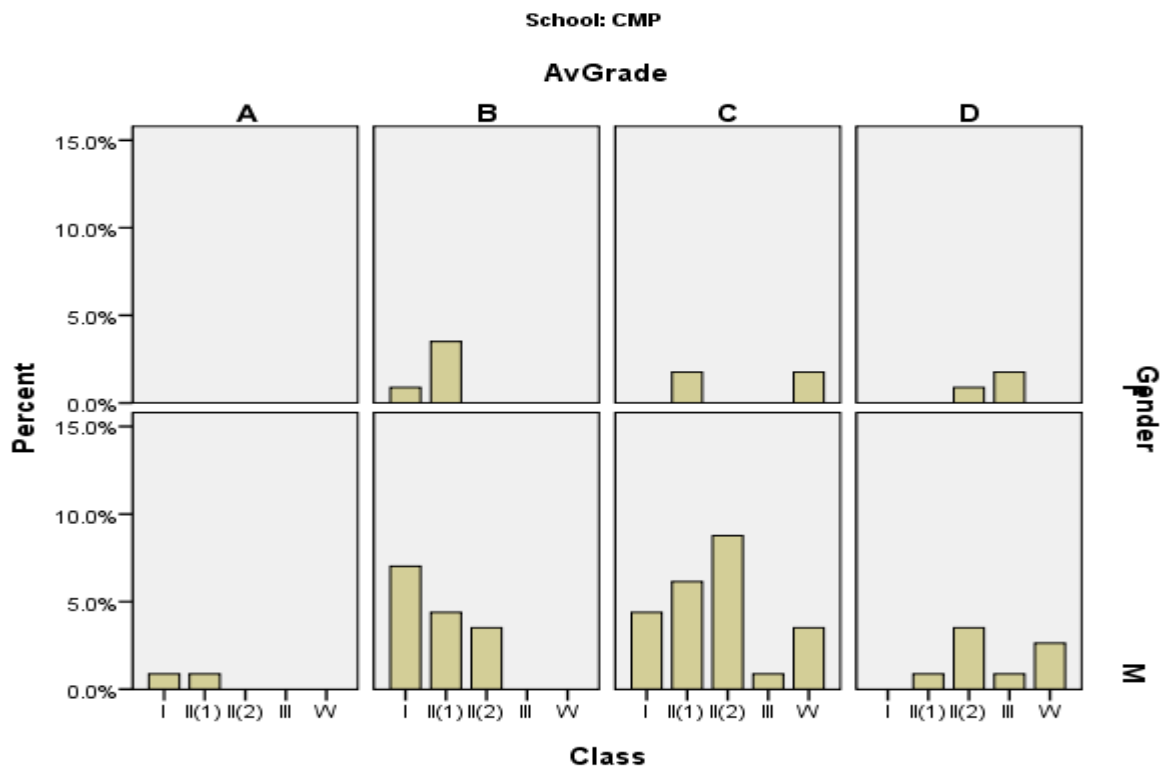
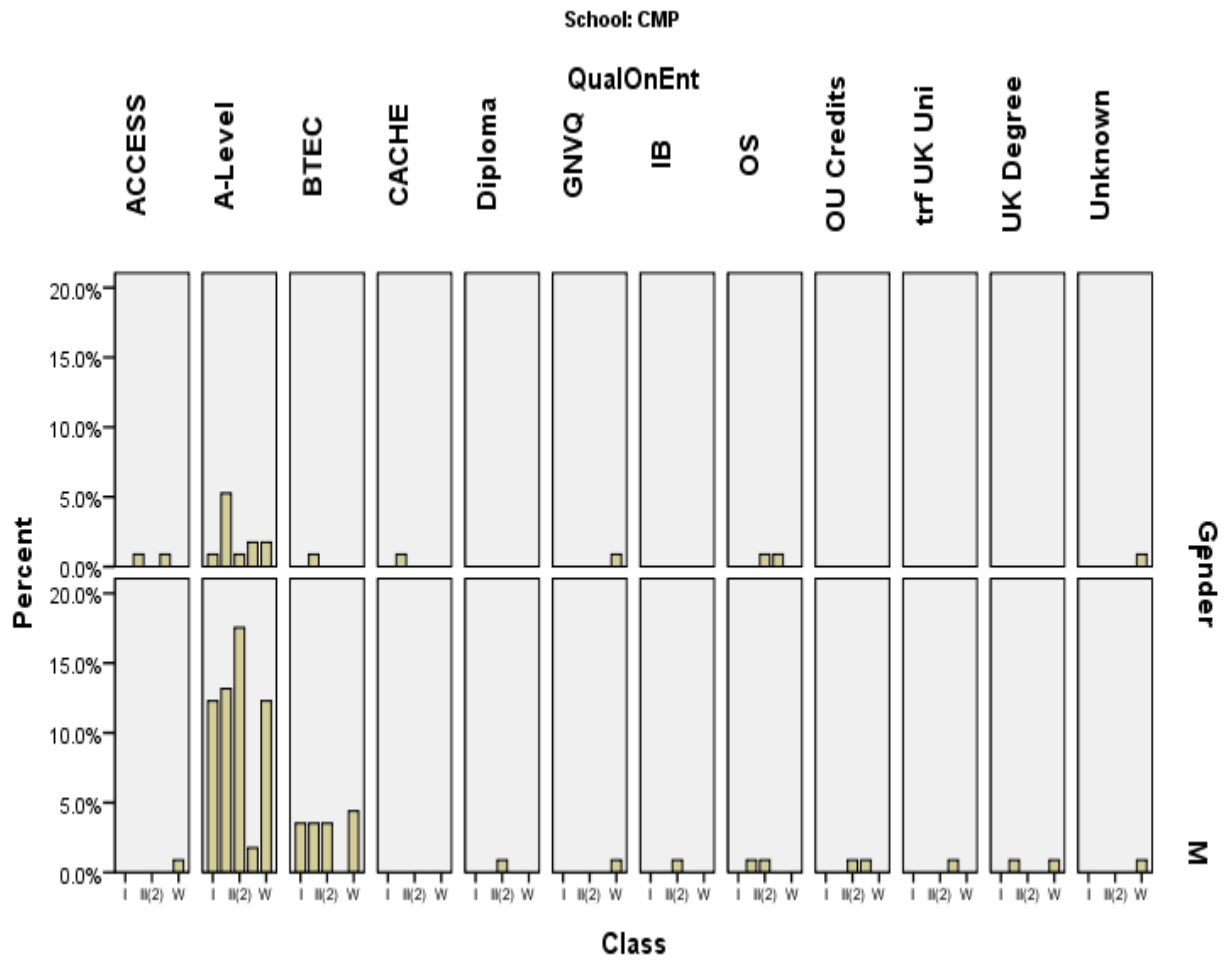


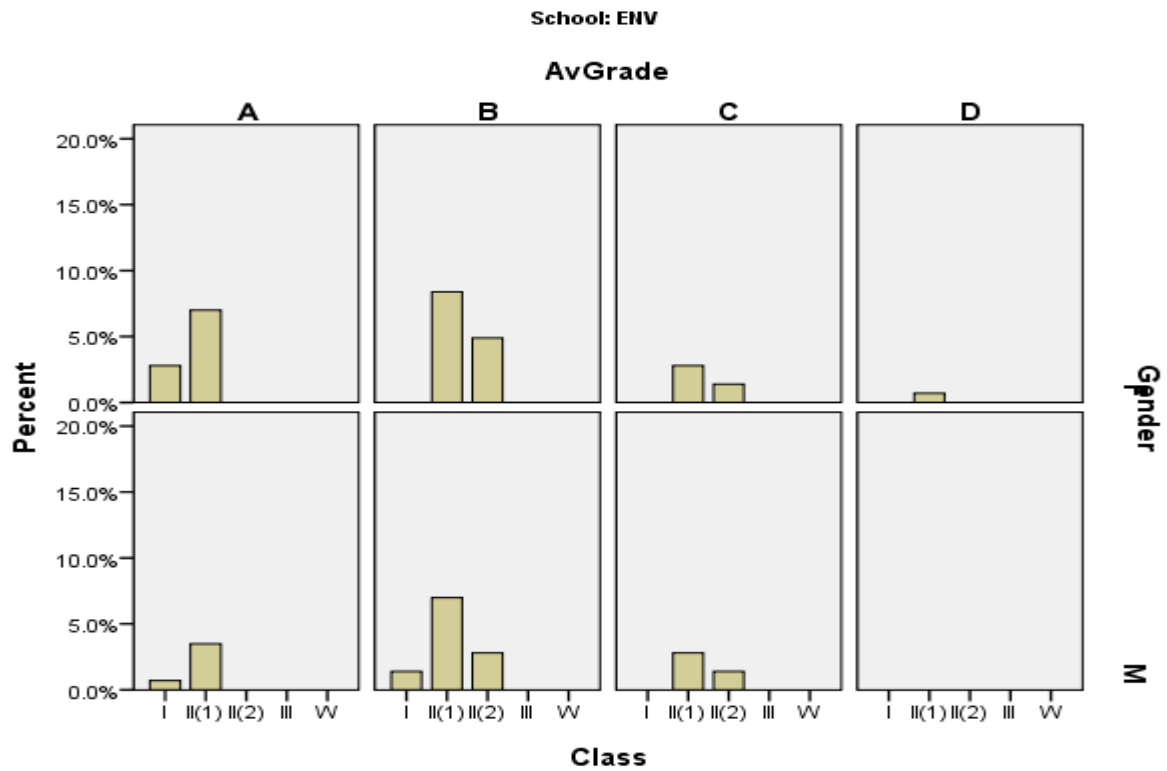
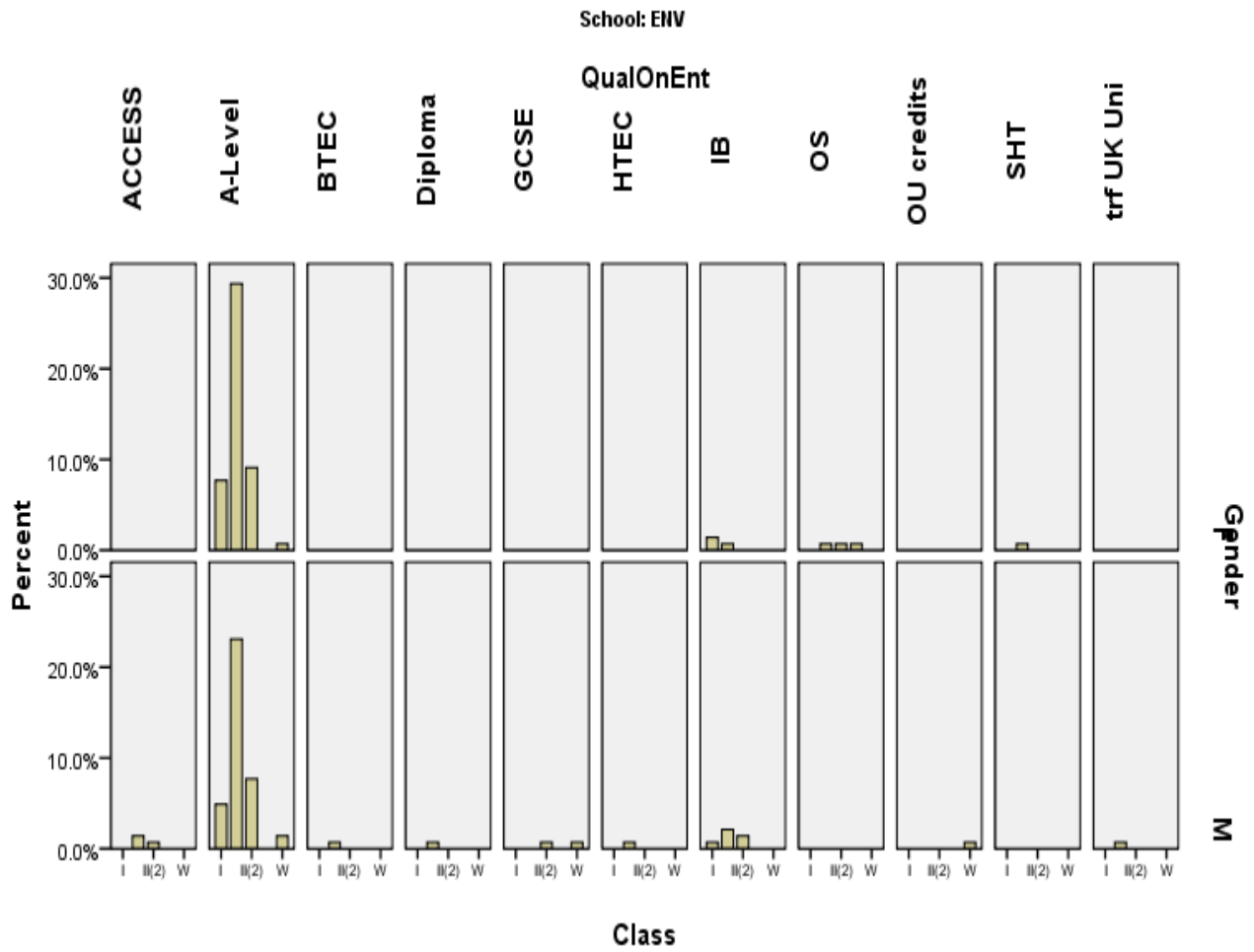
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AvGrade



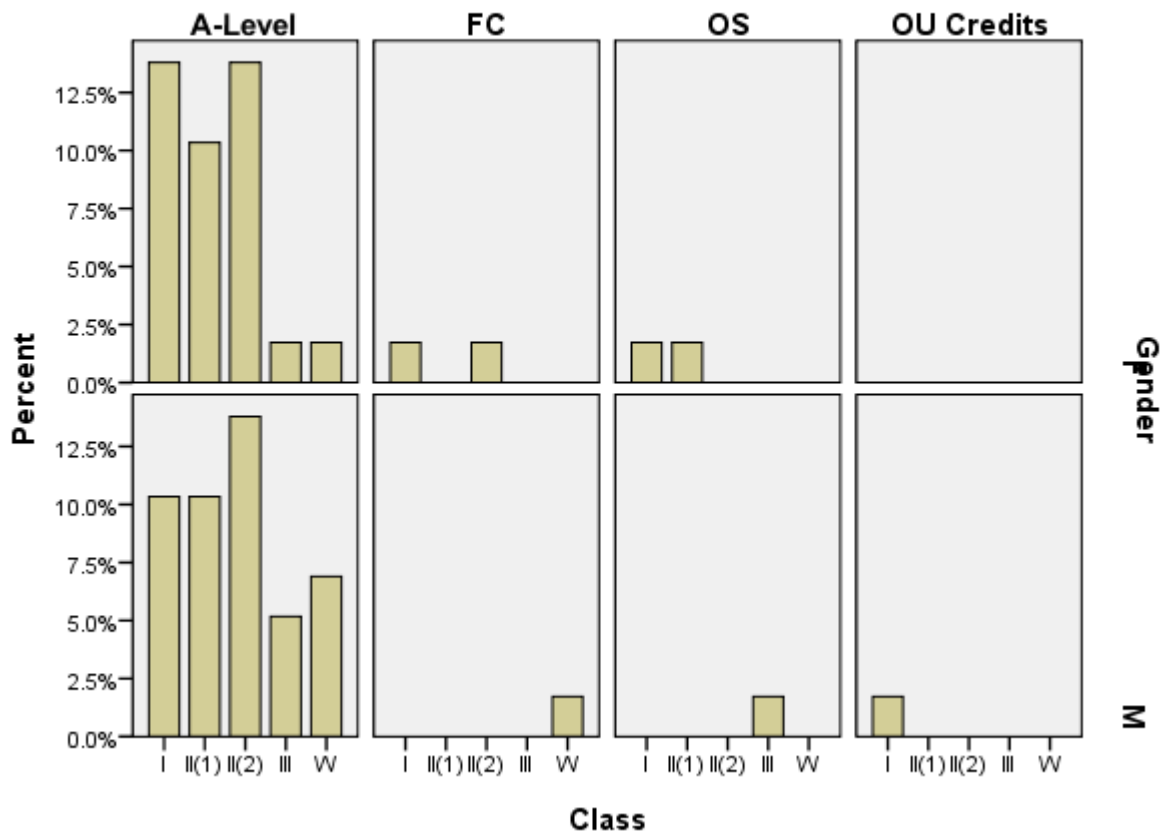






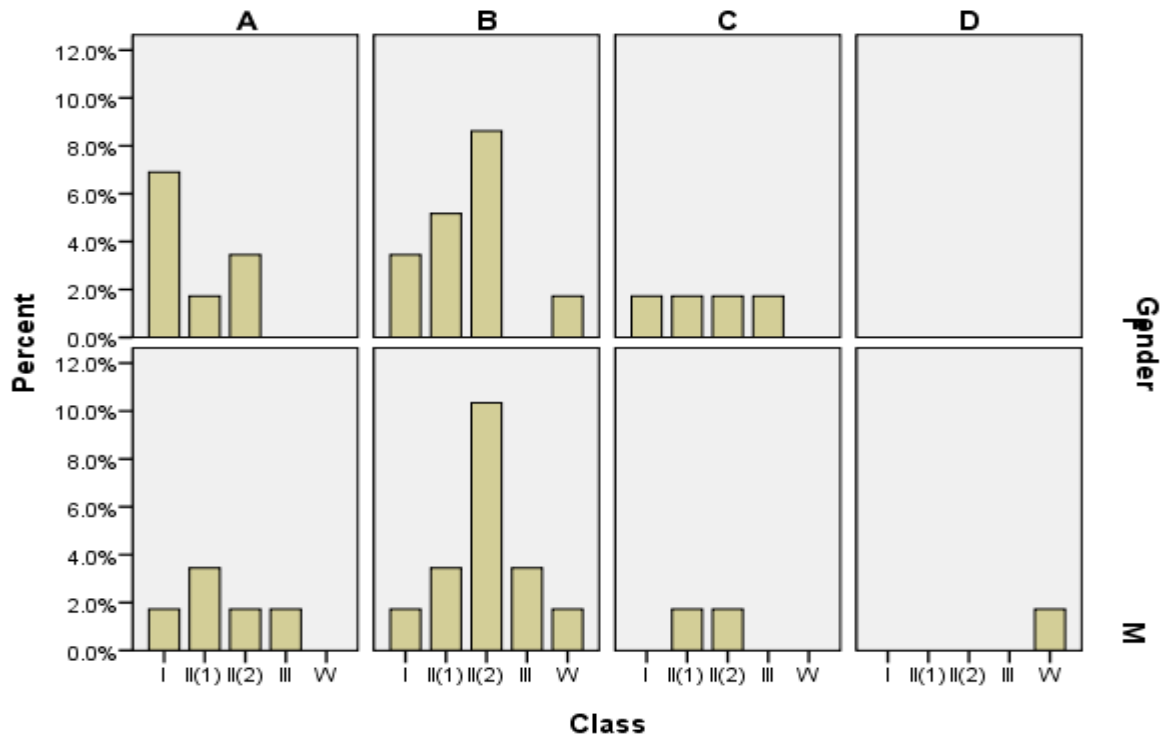
School: MTH

QualOnEnt



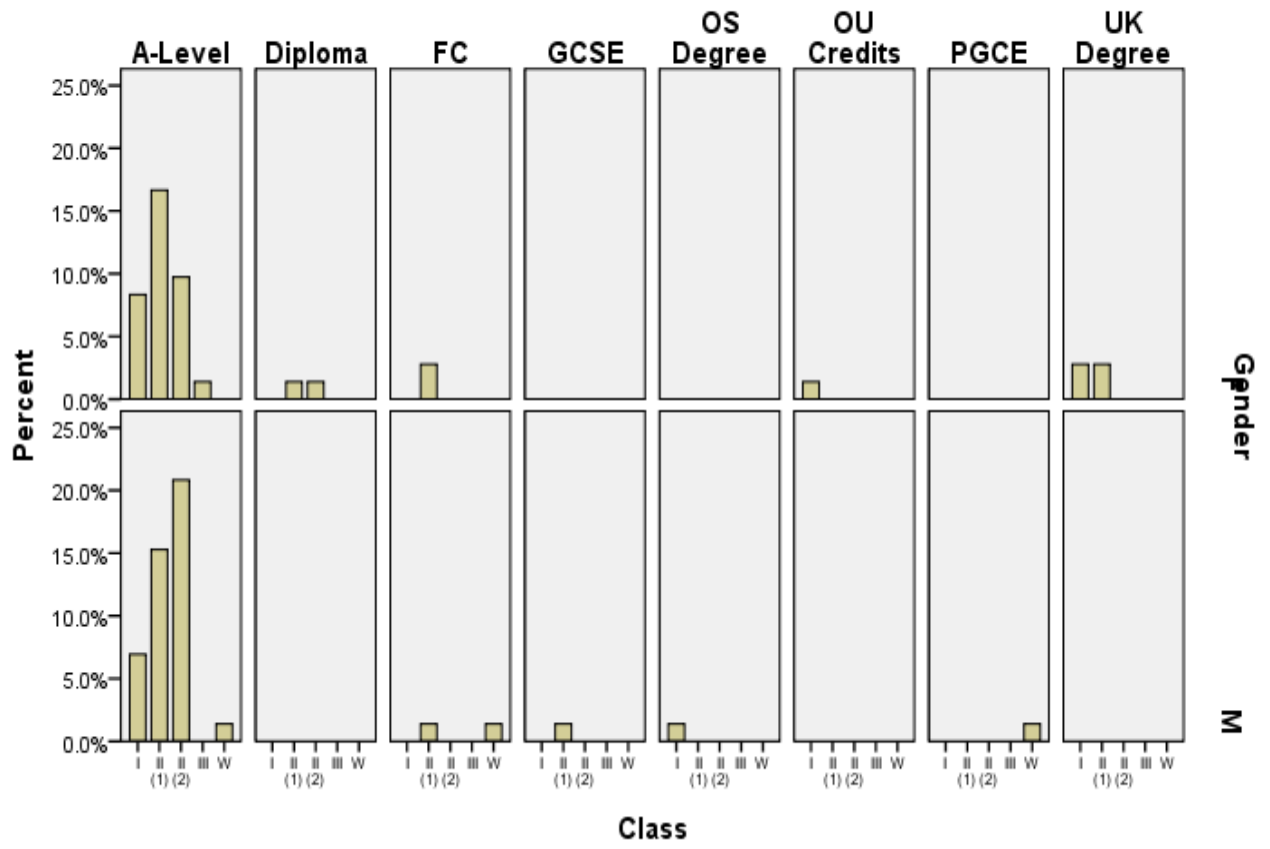
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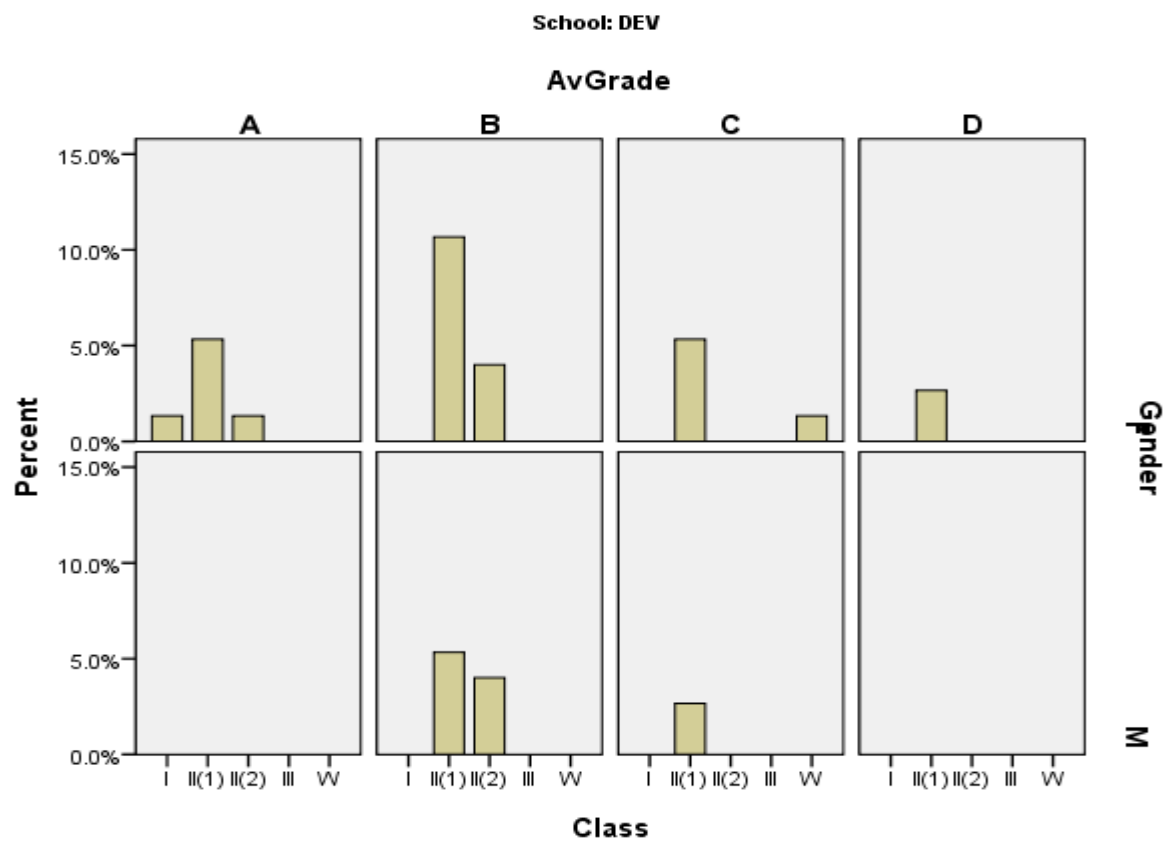
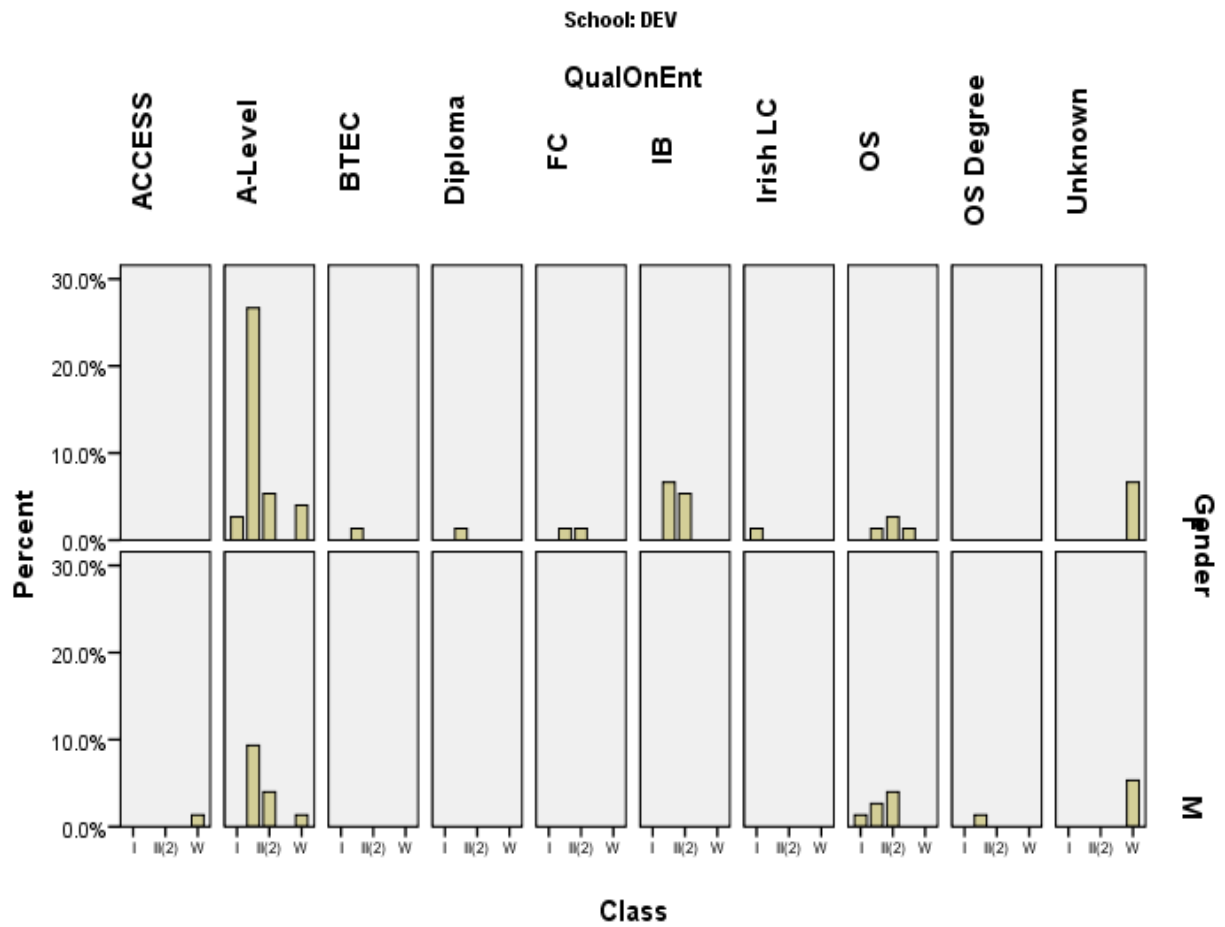
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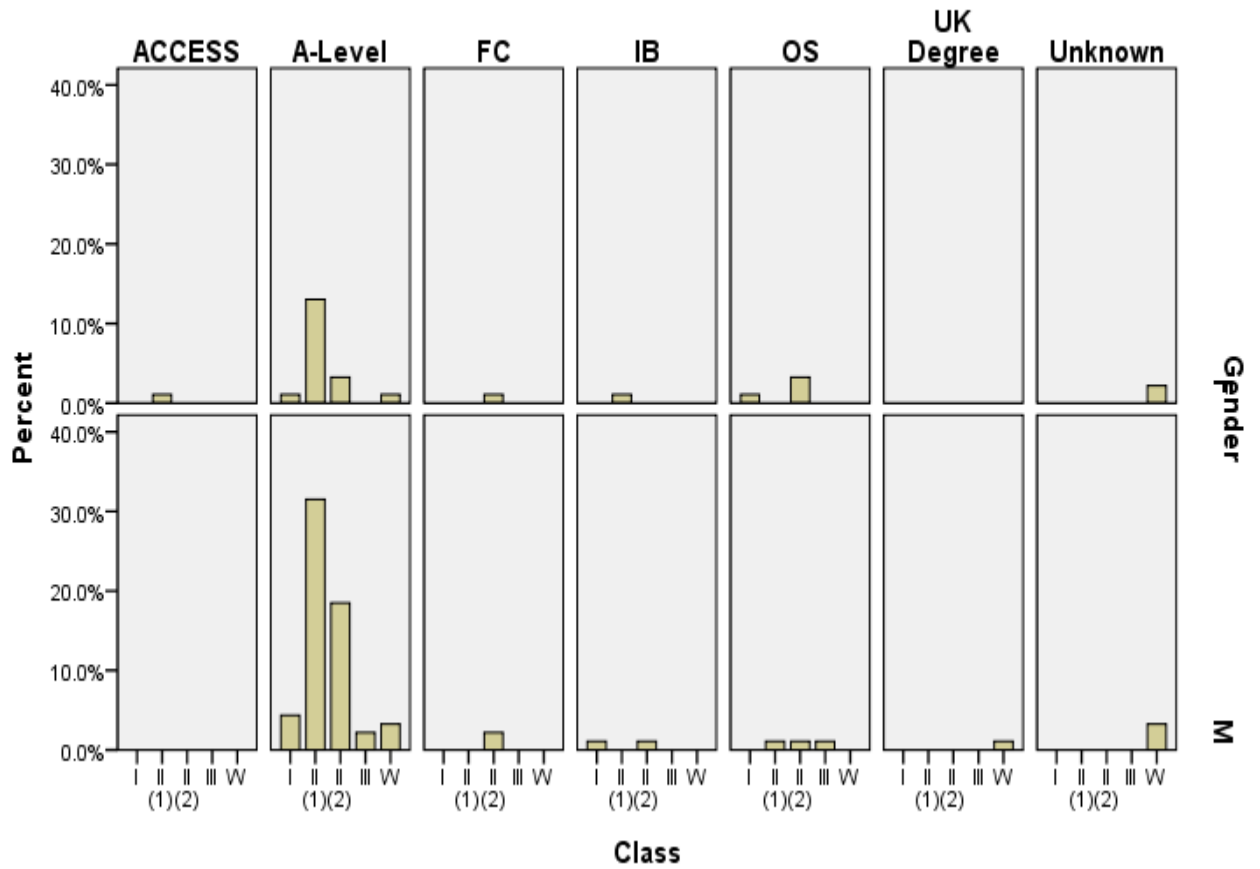
School: PHA

QualOnEnt



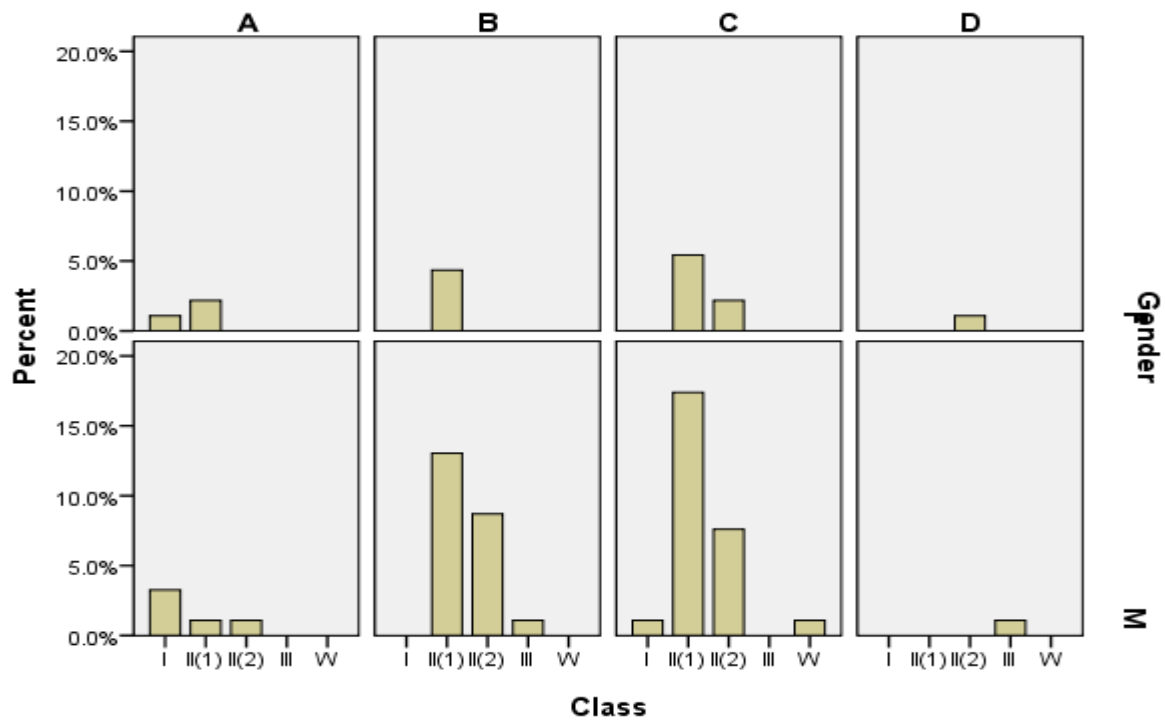


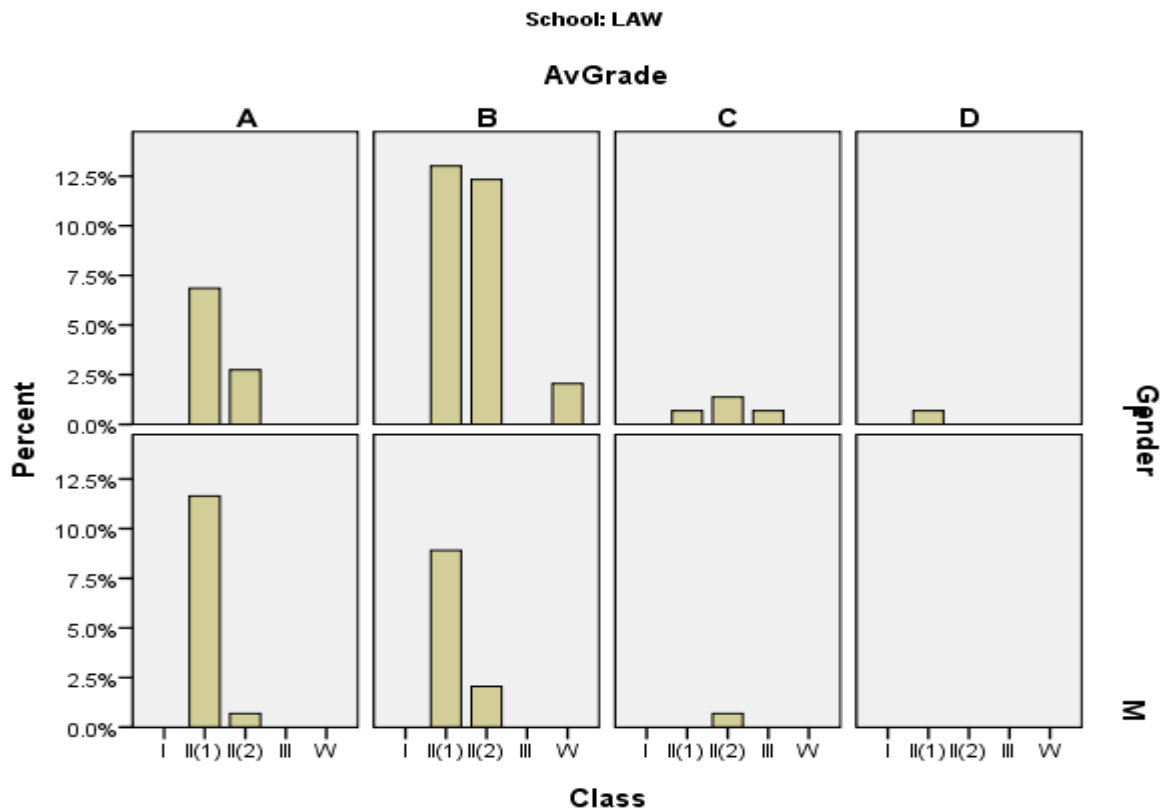
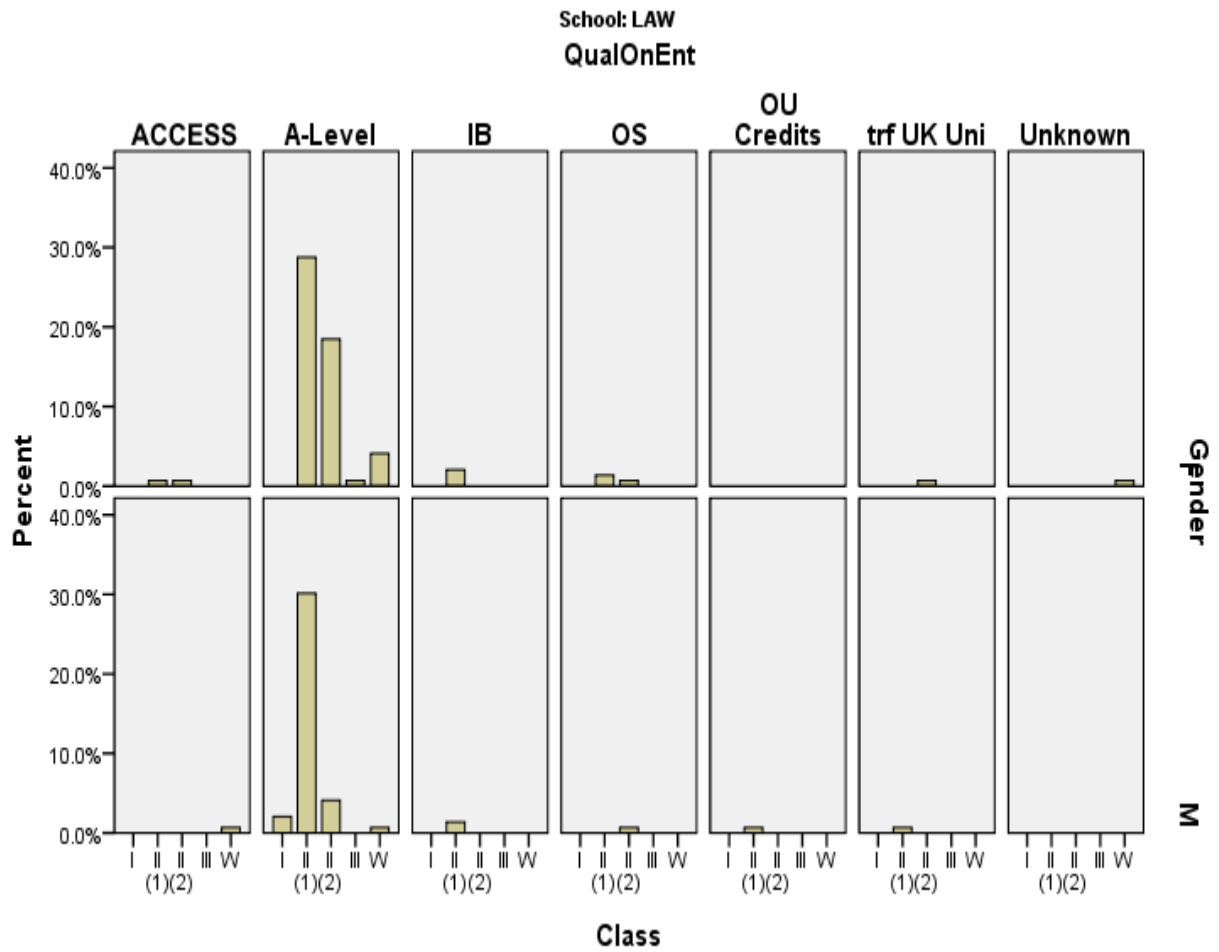
School: ECO
QualOnEnt

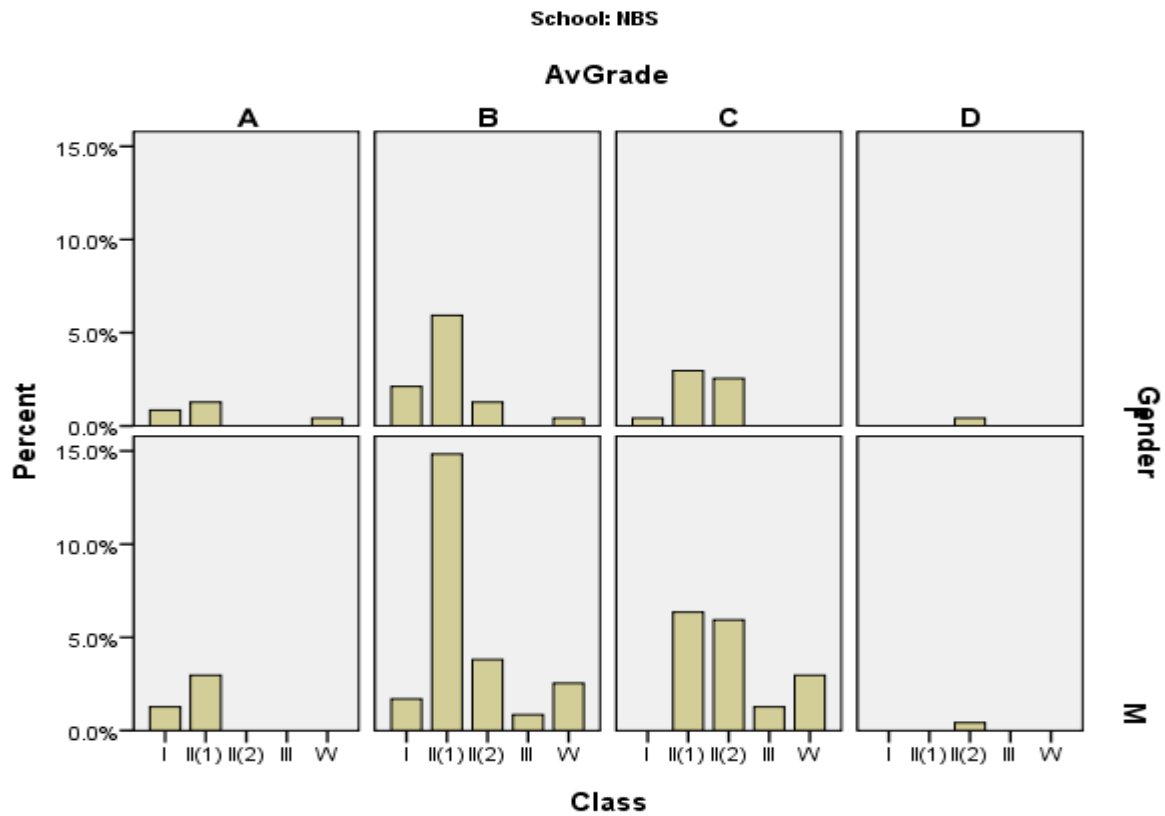
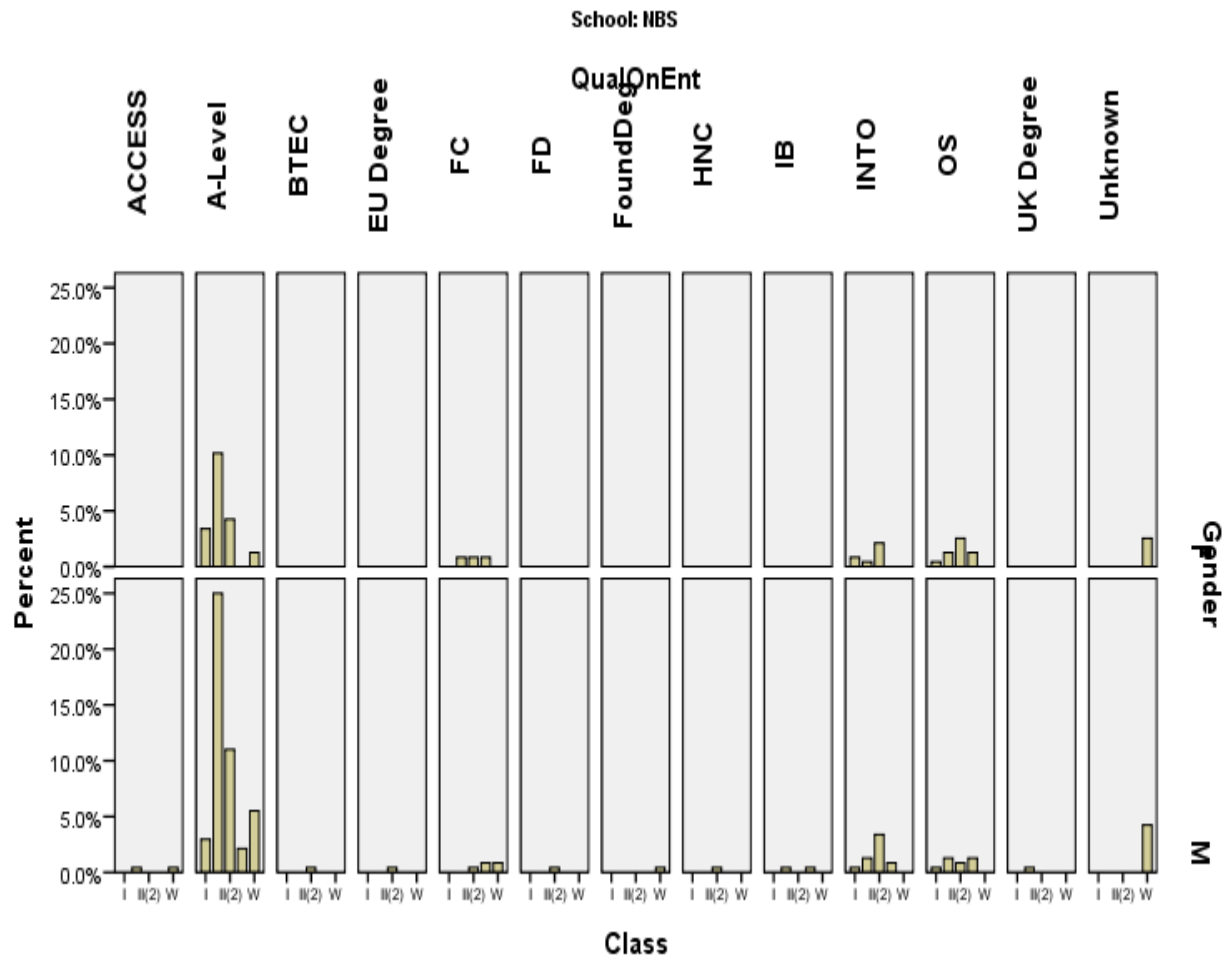


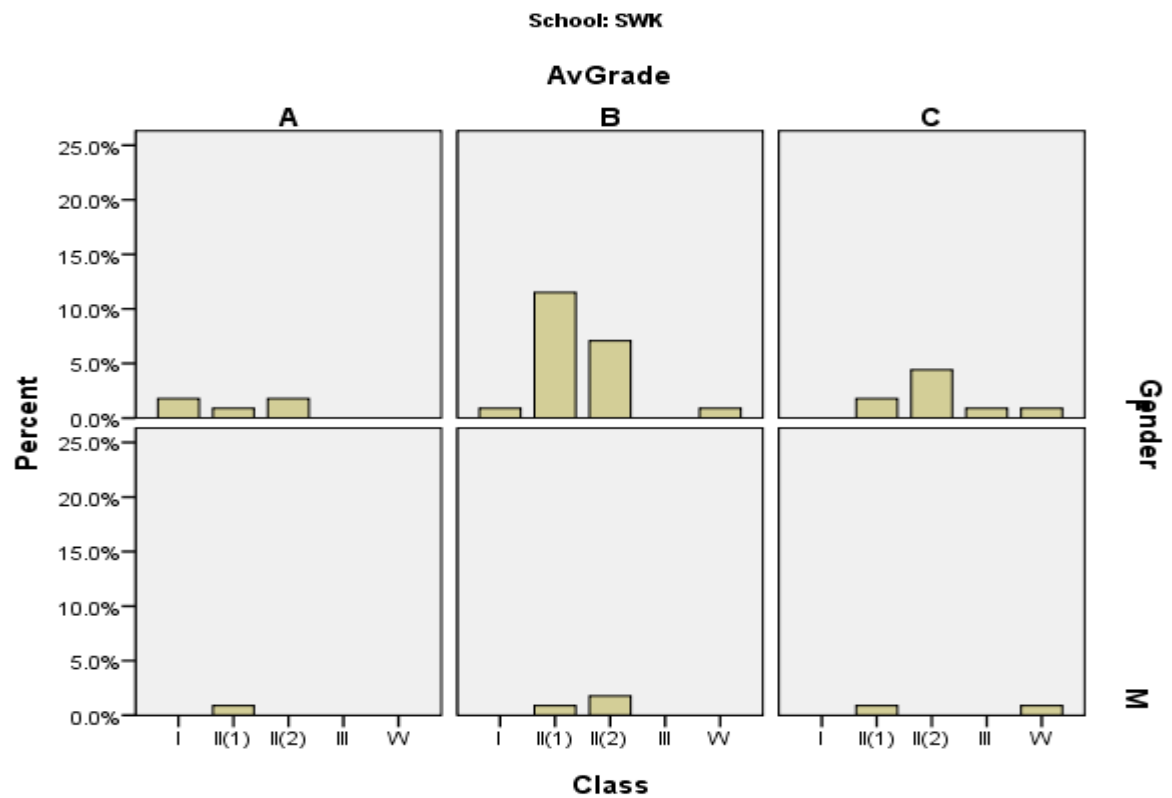
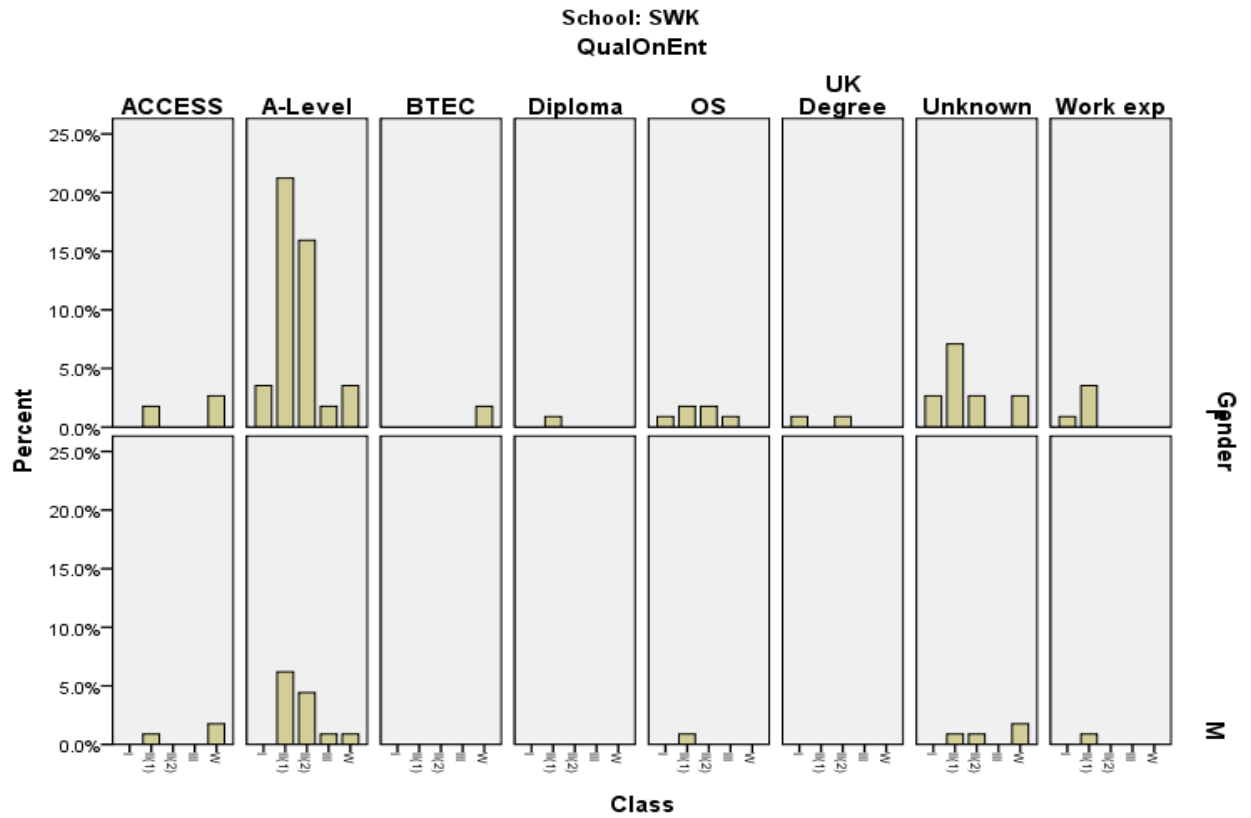
School: ECO

AvGrade









PART 3: Discussion and Recommendations

3.1 Discussion

The examination of student progress in Part 1 allows Schools to make some comparisons, which might prove to be a useful perspective. Of particular note are the comparisons that AHP can make internally by looking at the different positions on three different courses in the School, and the comparisons that other Schools can make within their Faculty. For example, in AHP, why are the progression patterns in B920 and B620 so similar, and why are they different from B160? Also, in SSF, why is LAW the only School with an above BBB average intake and the only School with a below 60% average in the final year? Some answers might lie in the detail of the course structure, subject benchmarking and the assessment of skills and knowledge. Some answers might lie in the detail of admission requirements.

Part 2 included a first attempt to link A-Levels on entry with the Award Mark at the end of the degree programme. Some questions that underlie the correlation work are:

- 1) What does a high correlation between A-Levels and attainment mean?
- 2) What does a low correlation between A-Levels and attainment mean?
- 3) What was expected?

The creation of a rank order list allowed a comparison with the NSS 2009 responses which showed some statistically significant correlations. A possible hypothesis to test from the correlation in overall responses is that the better organised a course the less students rely on achievements at A-Level. There are other possible ideas to test, but if the overall organisation of a course really is linked to achievement it is important to know more about the relationship. The different outcomes for the correlation tests for males and females, if there is any causality in the numerical relationship, could point to different approaches to learning. Students from non-traditional backgrounds (widening participation) might have evolved study or learning habits that rely heavily on internet resources, which might result in a perception that they haven't always had access to IT when they felt it was needed.

It is observed that the NSS questions focus on mechanisms in education and not on individual value measures such as "I felt my mind expand", which is a quote from a graduating student in 2008/9 who arrived with 3 A grades at A-Level and subsequently received a scholarship. It would be interesting to measure the range of experiences at an individual level rather than at the level of the HE system.

In summer 2008 the Project Officers (Transitions into/within HE and Review of Assessment) collaborated with the Union of UEA Students to gather information from graduating students on the overall experience of their course in a piece of work called "Wave Goodbye" (reported to LTC meeting 29 October 2008).

Looking at the UEA rank order list of the relationship between A-Levels on entry and Award Mark the Schools with the greatest relationship are MUS and NBS, and the weakest relationship are MTH and DEV. The Wave Goodbye survey drew several comments from students in NBS and DEV but very few from MTH and MUS. A selection of comments is shown below.

"The course covered a lot of topics containing 6 modules per year. I liked how much we covered for general knowledge but as we did so much i often felt we didn't really have enough contact time per module to fully understand it and therefore was under so much more pressure at exam time to learn things i wasn't sure about." NBS

"There was also an assumption in the Financial Module that everyone understood finance, balance sheet etc and how to interpret. It might have been beneficial for the tutors to ask the question at the beginning of the lecture prior to commencing to identify the level the students had." NBS

"Positive comments about Business Management program: - Wide range of disciplines and areas of study...Areas of improvement for Business Management program: - More challenging concepts, i.e. more depth and practical considerations of JIT management." NBS

"Communication and organisation of the School office poor at times. Overall knowledge gained good – a broad range." NBS

"I am pleased with the course I chose to study, it has given me a good overview of DEV and I have managed to mostly tailor it to my interests. Some criticisms: It is slightly too general...The office is pretty quick and efficient. And lecturers reply quickly to email enquiries." DEV

"broad is good – would have like to specialise more..." DEV

"good and interesting, just not enough..." DEV

"In most cases it fitted together well, with units building on previous ones. In the second year, however, i lost alot of my passion for maths due to the core units. The things you learn are so boring. Third year was much better, especially advanced maths techniques and fermats last theorem. Doing questions in those were fun and seemed much more useful. Analysis, algebra and solids lectures are what made me drop down from a 4 year MMath to the 3 year. I felt as if the learning was on pointless areas. Something i wouldnt do now, having had the freedom to do interesting units. I would much rather have had further choice in 2nd year." MTH

Interestingly, in both NBS and DEV there are repeated comments about the breadth of courses and this seems to be a common factor. The distinguishing feature is the difference of opinion on the level of organisation of the School office. It is possible that the leavers in 2009 have had a similar experience so these comments might help to explain the correlation with the NSS 2009 responses on "The course is well organised and is running smoothly." The comment from the student in MTH helps to make sense of the mid-range correlation value of 0.504 in that systems, such as HE, are not infinitely flexible and cannot accommodate the desires of every individual.

The comments and analyses presented so far in this discussion help to gain a perspective of students who have been successful and left UEA *after* completing a course of study. The other perspective that is required in order to gain an overview of the student experience at UEA is of students who withdraw *before* completing a course of study.

The examination of degree classifications and withdrawals by qualification on entry and tariff quality (AvGrade) showed some interesting results. In some cases a bi-modal distribution appeared which would be interesting to watch over time to see if a pattern does emerge. For example, in some Schools students with ACCESS backgrounds either did very well or were at the bottom end of the results. A similar distribution was seen in some cases of a C AvGrade.

It is apparent that undergraduate students from all sorts of educational backgrounds can succeed at UEA and achieve the award of a degree. It also appears that there are risks associated with the widening participation agenda and other mechanisms for HEFCE distribution of funds which have changed the threshold for participation. Clues to the student experience linked to this are also contained in the responses to the Wave Goodbye survey of 2008.

"Overall, I think the course was good. However, I think that many [modules] spent too long covering introductory material (often previously covered elsewhere) and didn't go far enough, especially in final year, where courses should be at the level of current research. I think the 1st-3rd years could easily have been combined into 2 years if the course structure was more carefully thought over (e.g. ensuring that all students have done appropriate prerequisites). I think there is a general tendency to teach to the lowest common denominator which is frustrating for almost everyone." ENV

"i generally have enjoyed my course however have found some aspects to be very repetitive to the extent that it feels as though they run out of things to teach us so just used old topics with a different module name" SWP

"Most of the teaching units were pretty good though there was so much emphasis on 'self directed learning' that some areas felt like a bit of a cop out with very little actual taught material." AHP

"Good variety of modules to choose from. Some lectures in the same module overlapped which was a bit repetitive." BIO

"I really loved the literature side of the course, and the way first year integrated creative writing ideas into the lit lectures. That said, Writing Texts was a total waste of mine and everyone else's time - I'd been through stuff like that at A level, it was incredibly dull and utterly pointless." LCW

We do not know enough about the reasons why students starting courses at UEA do not succeed, i.e. withdraw. The HESA field for recording the reason for leaving (transfer) allows broad categories to be declared. The most common reason, "other personal", is too broad to be of any help in understanding underlying reasons for student withdrawal. It is hoped an improved withdrawal process including a standardised form for capturing better quality information (approved by TPMG in March 2009) for use by Schools in future annual and course reviews will be a big step forward in this area which might lead to improvements in retention. Some factors underlying personal reasons for leaving might be under the control of the University and improvements in these areas could lead to a better student experience across the board. Other reasons will be completely external and beyond influence.

The Dean of Students Office undertook a review of the UEA's Academic Advising System in 2008 which included a survey of students who withdrew from the University during the 2006/7 academic year. The following is Table 8 from that report showing factors influencing respondents' decision to withdraw.

Influencing factors	N	Major influence N	Quite important N	Some influence N	Not relevant N	% major influence or quite important
Expectations of course content were not met	68	19	11	7	31	44
Disappointed by the teaching standards	68	15	11	10	32	38
Not given helpful academic support by School	65	12	9	7	37	32
Not given appropriate personal support by School	64	11	9	10	34	31
Chose the wrong course	64	11	7	5	41	28
I found it difficult to balance academic work with personal pressures	65	13	4	8	40	26
Unwell and not able to continue my studies	65	13	2	12	38	23
Financial situation causing great concern	65	10	3	13	39	20
Didn't know where to go for help and advice	64	6	6	9	44	19
Didn't feel adequately prepared for study	66	3	9	11	43	18
Pre-entry information did not give a realistic indication of University life and study	66	7	4	12	43	17
Too difficult to balance PT work with study	65	9	2	3	51	17
Preferred to be working than studying	65	5	5	8	47	15
I wanted to be closer to family and friends	64	6	3	6	48	14
Fellow students were difficult to live with	64	4	4	1	55	13
Not given appropriate support by central student services	64	5	3	6	50	13
Disappointed in the marks I was getting	65	6	2	8	49	12
I was lonely/not able to make close friends	65	4	2	3	56	9
Expectations of social life were not met	65	2	2	2	59	6
My family/friends put pressure on me to leave	65	3	1	0	61	6
Expectations for accommodation were not met	64	2	1	3	58	5

Top of the list is “Expectations of course content not met”. Further work is needed to better understand the expectations that students have and why we do not always meet those expectations.

A study on student retention at Coventry University (Johnson, 2002) lists the top four reasons for students dropping out as:

1. homesickness / wrong subject
2. financial
3. bored with course
4. failing assessment

It is possible that the “expectations of course content not met” view of students withdrawing from UEA might be related to the “wrong subject” and “bored with course” findings from the external study. It is possible that the “bored with course” is related to the widening participation agenda and “a general tendency to teach to the lowest common denominator” and this possibility should be investigated.

Widening participation is part of a general move towards greater numbers taking courses in higher education and the increase in student numbers has led to changes in IT usage but “widening participation in education is far more complicated than merely giving people access to ICT...the evidence does not suggest that ‘new learning technologies’ imply or precipitate ‘new forms of learning’” (Gorard et al, 2002). Furthermore, with first year students “...many appear to still have the school mentality of top-down teaching...the [student] assumption is that teaching is about conveying knowledge to the learner, from a position of authority. This sets all sorts of expectations about the kind of relationship teachers and students have, and the technology it is appropriate for a teacher to use.” (JISC report June 2008).

A study at the University of Wales has examined an introductory programming module looking at the wider range of students now entering higher education and the different learning styles present in the classroom. From the results of their study they “...are choosing to create materials that present the information and skills of the introductory programming course in ways that appeal to different kinds of learners’ preferences. As well as learning the material, students can also reflect on their own learning styles and work on strengthening their less preferred modes of learning.” A fundamental feature of the environment being created at the University of Wales is that “students themselves need to take control of their own learning.” (Thomas et al, 2002). Furthermore, progress in the understanding of the physiological processes involved in learning, particularly the differences between left-brain and right-brain hemisphere preferences, have even led to describing dyslexia as a learning style (Davies and Riley, 2006).

Finally, in some Schools males were achieving Firsts but females were not (and vice-a-versa). It was also noted that there was a difference in the male and female results for the correlations between the rank order of the importance of A-Levels to Award Mark and the NSS results. This might also be linked to learning styles as “...variations in learning styles have been linked to gender: women tend to be more visually oriented than men, who are generally more kinaesthetic, and consequently female students are systematically more prone to suffer the deleterious effects of learning style-teaching method mismatch than men.” (Bradford, 2004)

3.2 Recommendations

More work is needed to explore the implied relationship between course organisation and the student experience, and subsequent academic achievement at UEA. This would need to be conducted at School level.

More work is needed to understand different approaches by students to achieving goals. There appear to be differences in gender and backgrounds, including students from widening participation backgrounds, and these need to be better understood. Work in this area could include attention to learning (cognitive) styles and the diagnostic resources available to students to understand more about the way they learn.

More work is needed to understand the reasons why students withdraw from UEA. This work should include an impact assessment on different groups of students that goes beyond qualifications on entry and gender.

Some aspects of the work covered by the Review of Assessment project over the last 3 years have been discussed with colleagues in the Planning Office as part of a “legacy”; the creation of some standard reports for management information which can be used, for example, in course update and review, and by LTC at university level. It is hoped that Schools, via LTC, will monitor this development and help shape the standard reports for internal use. This is a long-term development and a mechanism for feedback by Schools and LTC to the Planning Office should be established. As indicated above, the information may be incorporated as an enhancement of the current course review process or something additional may be required.

The nature of the study also requires a view from Admissions. This may be sensible from a “bottom up” approach and will happen naturally when Schools review their information or analyse their own data, or there may be a need for a more strategic view. A decision should be taken on the best way to include Admissions in this process.

End of report.

**Course titles, years of study and numbers of students in data set
(i.e. with A-Level data in SITS)**

AHP

B160	Physiotherapy	3 years 25
B620	Speech and Language Therapy	3 years 12
B920	Occupational Therapy	3 years 28

HUM

W300	Music	3 years 15
V500	Philosophy	3 years 20
V350	History of Art	3 years 18
W400	Drama	3 years 16
Q300	English Literature	3 years 80
T901	Modern Languages	4 years 13
L200	Politics	3 years 55
T700	American Studies	3 years 22
W610	Film and Television Studies	3 years 25
V100	History	3 years 119

SCI

C100	Biological Sciences	3 years 41
G400	Computing Sciences	3 years 32
F900	Environmental Sciences	3 years 39
B230	Pharmacy	4 years 67
F101	Chemistry	4 years 5
G100	Mathematics	3 years 26

SSF

L921	International Development	3 years 16
M100	Law	3 years 91
C880	Psychosocial Studies	3 years 33
L111	Business Economics	3 years 19
N200	Business Management	3 years 85

APPENDIX B

Overall (UEA)

Males

Females

School	Correlation value
AHP	0.432**
AMS	0.353
ART	0.294
BIO	0.326**
CMP	0.503**
DEV	-0.099
DRA	0.290
ECO	0.322**
ENV	0.514**
FTV	0.398*
HIS	0.358**
LAW	0.447**
LCW	0.467**
MTH	0.183
MUS	0.617*
NBS	0.545**
PHI	0.540**
PSI	0.335**
SWP	0.440**

School	Correlation value
AHP	0.457
AMS	0.430
ART	0.691
BIO	0.183
CMP	0.467**
DEV	-0.336
DRA	0.287
ECO	0.250
ENV	0.535**
FTV	0.475*
HIS	0.349**
LAW	0.463**
LCW	0.578**
MTH	-0.014
MUS	0.224
NBS	0.531**
PHI	0.519**
PSI	0.365**
SWP	0.118

School	Correlation value
AHP	-0.004
AMS	-0.214
ART	0.188
BIO	0.428**
CMP	0.343
DEV	-0.097
DRA	0.289
ECO	0.185
ENV	0.341*
FTV	0.029
HIS	0.391**
LAW	0.500**
LCW	0.336**
MTH	0.417
MUS	0.596
NBS	0.553**
PHI	0.362
PSI	0.326*
SWP	0.394*

* = significant at 0.05

** = significant at 0.01

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