The British Psychological Society

Psychology Education Board

Briefing paper

The Future of A-level Psychology

Contents

Appendices

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INF209/2013

Printed and published by the British Psychological Society.

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Incorporated by Royal Charter Registered Charity No 229642

Executive summary

In June 2012 the Society instigated a consultation on the future of A-level Psychology. This represents the latest review in a longstanding involvement with the teaching of the subject in schools and colleges. The aim of the two-day meeting, held at the Royal Society's Chicheley Hall in Buckinghamshire, was to capture the current practice of A-level Psychology and to make recommendations for the development of the qualification. It is in part a response to concerns about the current provision of A-level raised by the government and also by educators.

The participants in the consultation were chosen to provide a diverse range of voices and to present the expertise and opinions of the many groups with an interest in A-level Psychology. They included representatives from higher education, from schools and colleges and from the Society.

The discussion took place under four themes:

- Curriculum and content.
- Is A-level Psychology fit for purpose?
- transitions between A-level and HE.
- Supporting teachers and teaching.

The discussion was also informed by a range of documents, including past reports by the Society, current syllabuses and comparison data. The Society also presented the results of two surveys commissioned especially for this consultation: a survey of more than 400 psychology teachers and a survey of nearly 900 A-level Psychology students.

The discussions reported here identify five key themes for action by the Society and others (detailed recommendations are made in the chapters within the report).

1. Preparing students for higher education

There is a need to create greater coherence between the curricula at A-level and in higher education. The current advice from the Secretary of State for Education clearly sees A-level as a preparation for university. We endorse this while also recognising that, for the majority of students, an A-level in psychology will be their only formal education in the subject.

2. Perceptions of A-level Psychology

There is a need to improve the perception of A-level Psychology held by the Department of Education and by the Russell Group among others. We see a lot of merit in the current provision although there are changes that can be made to improve curricula.

3. Variability in current A-level curricula

An issue for higher education is the variable experience of the subject that students bring from the current range of A-level curricula. This report gives clear guidance on what should form the core of any A-level (see Appendix 5)

4. Practical work

There was an overwhelming consensus that assessed practical work is an essential part of any A-level in Psychology. We welcome the opportunity to contribute to development in this area by awarding bodies as they devise new curricula.

5. Building the community of psychologists involved psychology education

The provision of teaching at all levels will be enhanced by greater involvement between the sectors. The Society can play a valuable role in supporting teachers of A-level Psychology and also in facilitating greater links between schools and universities.

Attendance List

Jeremy Airey	National Science Learning Centre
Jas Badesha	Varndean College, Brighton and Hove
Peter Banister	President, The British Psychological Society
George Bannister	Ashton Under Lyne Sixth Form
Phil Banyard	Chair, BPS Chair Standing Committee on Pre-Tertiary Education & Nottingham Trent University
Priya Bradshaw	Aquinas College, Stockport
Viv Brunsden	BPS Standing Committee on Pre-Tertiary Education & Nottingham Trent University
Dorothy Coombs	Association for the Teaching of Psychology
Jamie Davies	Wyke College & PsychExchange
Karen Duffy	BPS Standing Committee on Pre-Tertiary Education & Manchester Metropolitan University
Louise Ellerby-Jones	The Highfield School, Herts
Frances Harding	St Michael's Catholic High School, Herts
Mark Holah	Wyke College & PsychExchange
Ruth Hooper	BPS Standing Committee on Pre-Tertiary Education
Jeremy Hopper	Aquinas College, Stockport
Julie Hulme	Higher Education Academy
Paul Humphreys	BPS Division of Academics, Researchers & Teachers in Psychology
Matt Jarvis	BPS Standing Committee on Pre-Tertiary Education, Keele University & Totton College
Tim Jones	BPS Division of Academics, Researchers & Teachers in Psychology & University of Worcester
Helen Kitching	Association for the Teaching of Psychology
Shaheen Laljee	Rochdale Sixth Form College
Peter Reddy	Aston University, Europlat
Mark Smith	Boroughbridge High School
Mark Souter	Clacton Coastal Academy
Penney Upton	BPS Division of Academics, Researchers & Teachers in Psychology & University of Worcester

1. Introduction

Psychology has the potential to create a sense of wonder in anyone who studies it. It is the personal science that explores how we make sense of the world, ourselves and others. It is about the gaps between sensation and perception. It is about the wonder of being alive. Could there be another subject that is more engaging, more relevant or more personal?

Psychology A-level was first examined in 1971 and since that time has attracted more and more candidates each year so that it is now the fourth most popular A-level. This growth has also been mirrored at degree level and psychology is now an important part of the general education of the nation. The British Psychological Society has been involved with A-level Psychology since its inception and has commissioned this report to continue that involvement and to make recommendations for future developments. The current review of A-Levels by the UK government affords an opportunity for reflection and development of the subject.

Aims

- To capture the current state of A-level Psychology;
- To consider possible and practical developments for the subject;
- To consider how A-level Psychology can fit into general education (both prior and post A-level);
- To explore how A-level teaching and teachers can be supported; and
- To offer recommendations for curriculum developers.

Intended outcomes

- A written report for the Society;
- Boost the profile of pre-degree psychology in the Society;
- Create a position statement that will form the basis for lobbying awarding bodies, government and other learned societies; and
- Create a strategy for supporting the development of the widest possible community of psychology teachers.

The consultation

The Society has regularly reviewed pre-tertiary psychology education and kept a watching brief for nearly 50 years. Recently these reviews have taken the form of a working party and subsequent report. The last report was published in 2003. For this new report and building on the model of the undergraduate report last year (Trapp et al., 2011), the Standing Committee on Pre-Tertiary Education proposed to host a two-day event bringing together the main stakeholders in A-level Psychology to discuss and identify the main issues facing pre-tertiary psychology in the UK. Given the state of flux within the government in relation to curriculum matters and the uncertainty this is producing in the sector, the committee felt that this was an ideal opportunity to take a proactive approach and review the status quo, consider what may need to change to improve the position of psychology in the future within the sector and to identify actions from the major stakeholders to facilitate achieving our goals. It was proposed that this would explore whether or not changes in psychology education will be needed to ensure that it is fit for purpose in five or 10 years time.

Attending the consultation

The participants at Chicheley Hall were chosen to provide a diverse range of voices and to present the expertise and opinions of the many groups with an interest in A-level Psychology. The Society members present included the President and members of the Division of Academics, Researchers and Teachers in Psychology (DARTP). Higher Education (HE) was further represented by Europlat and the psychology lead at the Higher Education Academy. Practising teachers were represented through committee members from the Association for the Teaching of Psychology, the Science Learning Centre, the designers of PsychExchange, current and past examiners for awarding bodies and from newly qualified teachers. The Psychology Education Board, through its Standing Committee on Pre-Degree Teaching, provided the four discussion leaders and the discussions were supported by four staff from the Society.

Evidence

The evidence considered before the retreat included current curricula for A-level Psychology plus comparison curricula in other subjects. The previous report from the BPS on this topic published in 2003 was also presented to the participants. In addition the BPS commissioned two opinion surveys; one of psychology teachers and the other of A-level students. These were presented at the retreat and are summarised in this report.

Structure of the report

The structure of this report follows the four discussion themes that were developed during the consultation.

1. Curriculum and content

The brief was to consider:

- psychology's contribution to the general science curriculum and whether this is the best place to position the subject;
- designing a curriculum to form the basis for further study of psychology and other subjects;
- designing a curriculum that acknowledges that this is likely to be the only psychology qualification that most students take;
- dealing with sensitive issues that are an inevitable part of a course in psychology;
- creating a syllabus that is engaging and challenging;
- the place of practical work; and
- essential and desirable elements of the curriculum.

2. Is A-level Psychology fit for purpose?

The brief was to consider:

- the aims of pre-degree psychology;
- how much current A-Levels promote psychological literacy and how can this be enhanced in future developments;
- perceptions of A-level Psychology by higher education establishments; and
- perceptions of A-level Psychology by other psychologists.

3. Transitions between A-level and HE

The brief was to consider:

- how curricula match up between A-level and HE;
- recommendations for HE;
- identifying lessons from HE for A-level and vice versa; and
- how to develop and maintain the dialogues between the two sectors.

4. Supporting teachers and teaching

The brief was to consider:

- the training needs of teachers in schools and colleges;
- issues arising from the position of psychology in the general curriculum (i.e. mainly in years 12 and 13);
- resource issues;
- management issues; and
- the role of PGCE training.

5. Survey of psychology teachers

6. Survey of A-level Psychology students

2. Contexts

Phil Banyard, Nottingham Trent University

The development of A-level Psychology

In the late 1960s the BPS set up a working party to look at the way that psychological issues were being taught in schools and colleges. The discussions were led by John Radford, then Head of Psychology at West Ham Technical College and now Emeritus Professor at the University of East London, who was then invited by the Associated Examination Board to write and examine an A-level in the subject. Such were the concerns about the adult nature of the material that it was only offered to a selected group of 25 centres until the mid 1970s. During the next 20 years there was exponential growth (Radford & Holdstock, 1996) and although the pace of expansion has slowed the number of entries continues to grow each year. It is now the fourth most popular A-level in the UK with over 55,000 entries in 2011 for the full A-level and over 100,000 entries for the AS (JCQ, 2011) and it has been in the top eight subject choices for the last 10 years (see Appendix 1 for recent entry figures).

The development of the A-level and other psychology teaching in schools led Radford to propose an association for psychology teachers. Following a letter to schools and colleges the Association for the Teaching of Psychology was formed in 1970, with Radford as the first Chair. The ATP has developed over the subsequent 40 years and holds an annual residential conference attracting hundreds of delegates and providing valuable support for teaching and teachers.

In the last 50 years a community of psychologists has developed to service this growth in pre-degree psychology. The number of psychology teachers is not officially recorded but a conservative estimate would suggest in excess of 3,000 UK teachers have a substantial amount of psychology on their timetables. Alongside this are the textbooks and other teaching materials that have been developed. These resources have spilled over into undergraduate courses so, for example, the leading A-level text by Richard Gross (Gross, 2010) is also the leading text for undergraduate courses with over 50 per cent of the market (personal communication from UK publisher). The strength and depth of this community of teachers can be seen in the online facility for sharing teaching resources in psychology, PsychExchange (www.psychexchange.co.uk) which has 70,000 users sharing nearly 10,000 files and making 2.8 million downloads (accessed 5.8.12).

The growth of the subject has been demand led in that students in year 12 make their own subject choices, though of course these are framed by availability. Initially the popularity of Psychology in further education colleges put pressure on schools to introduce it into their curriculum and it is now available as a choice for the majority of students. One key impact of this has been that university applications for Psychology have also dramatically increased. Psychology is now the third most commonly studied subject at university behind law and business. There are currently over 77,000 undergraduate students, which is more than double the number of ten years ago (Trapp et al., 2011).

A second key impact of the growth in A-level Psychology has been that the majority of students enrolling for a degree in the subject have already studied it for two years. This has

created a challenge for university departments as they attempt to adjust their curricula to deal with the prior knowledge of their students. This transition has attracted some interest for over 20 years (see Foot & Gammon, 1990; Smith, 2010) though the issue is far from being resolved and there has been little movement towards the development of an integrated curriculum for psychology across the different sectors of education.

The growth in demand for the subject has not been symmetrical across the demographic. The proportion of males taking an A-level in psychology currently stands at 27.1 per cent of the total entry and they perform less well than females with only 14.1 per cent obtaining a grade A or A* compared with 25.6 per cent of females (JCQ, 2011). Interestingly at the halfway point of A-level (AS examination) the gender split is slightly reduced with 31.4 per cent of the candidates being male, though their performance is still weaker than the females with 19.6 per cent at grade A* or A compared to 33.3 per cent for females. The genderisation of psychology has attracted a lot of speculation (for example Radford & Holdstock, 1995; Sanders et al., 2009) but it is not fully understood.

An easy option?

The growth in demand for A-level Psychology has not always been positively received and there have been frequent comments in the press claiming that it is an easy option (Jarvis, 2011b). For example, John Dunford, the general secretary of the Secondary Heads Association, claimed to BBC News that children were choosing subjects they thought were easier and he identified psychology as one of these subjects (BBC, 2003). The BPS made a strong rebuttal of the claims (Morris, 2003) but the view of psychology as a non-traditional and hence less valid subject remains. There is concern that this view informs the selection process of Russell Group universities with psychology being a non-preferred A-level (Daily Telegraph, 2011; Russell Group, 2011).

It is possible to make a robust rebuttal of the suggestions that psychology is an easy option. Evidence about the relative difficulty in achieving good results in particular subjects is systematically collected and commonly shows that psychology is at least as taxing as other equivalent subjects. For example, a recent comparability study by the Qualifications and Curriculum Authority (QCA, 2008) using expert judgements found that the assessment of psychology and biology at A-level were of equivalent difficulty. Using a different method the Curriculum Evaluation and Management (CEM) Centre at Durham University monitors relative achievements in different A-levels. Using GCSE performance as an indicator of ability, different analyses are carried out to compare the average GCSE performance for those students achieving a pass at A-level. The most recent published comparison in 2008 placed psychology around the middle of ranked subjects (Coe et al., 2008).

Psychological literacy

One consequence of the growth in psychology courses at all levels is the increasing proportion of the population of the UK who have taken a programme of study in the subject. This is growing at over 100,000 people every year and has been near to this level for a generation. In 2012 in the UK there were about 750,000 17-year-olds, meaning that over 13 per cent of them had taken an AS qualification in the subject; if you added in the number taking psychology as part of their courses in health and social care, for example, then a picture develops of a population with a growing awareness of the basic ideas of

psychology. For many students this is the only psychology course they study so these school-based courses are in a position to have a profound effect on the nation's understanding of psychological concepts.

The term 'psychological literacy' was first used by Boneau (1990) in a study to identify key concepts in psychology. Subsequently McGovern et al. (2010) use the term 'psychologically literate citizens' to refer to the outcome of a degree in psychology that results in students becoming 'critically scientific thinkers and ethical and socially responsible participants in their communities' (page 10). It is clear that in the UK the most common qualifications that students finish their studies in psychology with are AS and A-level. The psychological literacy of the UK will therefore be defined by these courses.

A-level reforms 2012

Over the past 30 years successive governments have reviewed A-level provision and made adjustments to the content and structure of the courses. For example, in 1997 following a review by Sir Ron Dearing, it was decided that the post-16 curriculum was too narrow and inflexible. The new qualifications introduced in September 2000 introduced the AS (Advanced Subsidiary) qualification representing the first half of an A-level. Also introduced was a universal structure of six modules for the full A-level and 3 modules for the AS, as well as opportunities for retaking modules and crediting the highest score achieved (Ofsted, 2001). This modular structure had unforeseen consequences for pass rates and grading.

Public concern with A-levels often centres on the pass rate and the proportion of candidates achieving the highest grades. From 1950 until the early 1980s pass rates had remained constant at around 70 per cent while entry numbers had increased by more than fivefold. Following a decision to set grades by criteria rather than performance norms the pass rate rose steadily towards 90 per cent by 1990. Following the reforms of Curriculum 2000, there was another leap and the pass rate is now approaching 97 per cent. Pass rates have increased every year for the past 29 years and passes at grade A have also steadily increased from under 10 per cent in 1981 to over 25 per cent in 2011 (Smithers, 2011). Scan any newspaper and you will find negative headlines every summer about the perceived grade inflation.

One of the issues for educational reform is to decide what question it is that A-levels are providing the answer to. On the one hand they are used as the main selection tool for courses in higher education. On the other hand, many students who take A-levels do not go on to higher education and so the courses are often their exit route from formal study.

The most recent reform is in the process of consultation and this report aims to provide some guidance and support for educators charged with developing and enacting the reforms. The reform is informed by two key reports. The first is based on a survey of higher education, teachers and employers on the suitability of A-levels. (Higton et al., 2012). This report suggests that there is general endorsement of A-levels by stakeholders but it also identified gaps in skills and a mismatch between the subject content in A-level and that required by higher education institutions. The second report is an international comparison of equivalent qualifications to A-level (Ofqual, 2012c). This report raises questions about demand and challenge of the current A-levels, the breadth and depth of particular courses and of the A-level programme as a whole, and design of assessments.

In terms of the structure of the new A-levels the government is considering reducing the opportunities for assessment and reducing the number of components in each subject. There is also a clear intention to ensure that universities are involved in the development and monitoring of the new courses.

The BPS and A-level Psychology

The Society has kept a watching brief on A-level Psychology since its inception. It currently comes under the remit of the Psychology Education Board (PEB) which has a standing committee to deal directly with pre-degree psychology courses. It is that standing committee that is responsible for this consultation and this report. The BPS also contribute to the wider community of psychology teachers and teaching through the Division of Academics, Researchers and Teachers (DARTP).

Following on from John Radford's initial discussion in the 1960s, this is the third report that has been commissioned on A-level Psychology, the previous ones being in 1992 and 2003. This report aims to review the position of A-level Psychology and make recommendations for future developments. It does not aim to take a defensive stance on the A-level but to highlight the strengths of the subject and to contribute to the further development of a course that provides an excellent vehicle for post-16 education.

3. Curriculum

Phil Banyard, Nottingham Trent University

Psychology has the potential to produce a 'Wow! factor'. Some curriculum designers acknowledge this. Look at the subject criteria for psychology courses at GCSE level published by Ofqual. The first learning outcome they identify states,

> '[Courses in psychology] … must encourage learners to be inspired, moved and changed by following a broad, coherent, satisfying and worthwhile course of study and to gain an insight into related sectors such as science. They should encourage learners to develop a personal interest and enthusiasm for psychology and prepare them to make informed decisions about further learning opportunities and career choices.' (QCA, 2007, page 3).

Further learning outcomes are to 'develop an awareness of why psychology matters' (page 3), and 'develop and understanding of the relationship between psychology and social, cultural, scientific and contemporary issues and its impact on everyday life' (page 4).

The discussions explored the strengths and weaknesses of current curricula in psychology and looked at how they can be developed to present psychology in the most interesting, useful and challenging way possible.

Contexts

A curriculum is defined by three components: the skills to be developed, the content to be studied and the assessment techniques that are to be used to check the learning that has taken place.

Skills

All A-level subjects contribute to the development of general educational skills and these are identified at the start of any syllabus. Each subject has some subject-specific skills which are also articulated in the syllabus. Hayes (1996) identified a set of skills that are a feature of any course in psychology (see chapter 7 for a summary) and suggested that it is the range of these skills that makes psychology an ideal vehicle for delivering general educational skills.

Content

The undergraduate curriculum is defined by the BPS for all degrees wishing to provide Graduate Basis for Chartership (GBC). Students are required to study the full range of the subject and take courses in developmental, cognitive, biological and social psychology as well as individual differences and conceptual and historical issues. All psychology degree programmes also require students to conduct practical work and to study methods.
The task for A-level curriculum designers has been to prepare students for these courses without creating too much overlap and at the same time providing a course that is self-contained.

Assessment

Many A-level assessments are still conducted using traditional (i.e. pre-digital technologies) techniques, and focus on traditional academic skills. The origin of these techniques in UK

education can be traced back through the University of Cambridge Local Examinations Syndicate (UCLES) to 1858 when a group of academics were invited by some Durham schools to develop assessment techniques for their pupils. The lessons were observed to capture how the pupils were being taught. Tests were devised to match the teaching and learning that was taking place (Banyard, 2010). The techniques for A-level (and university) examinations are largely the same today even though the style of teaching and learning has moved on dramatically. A major change concerns digital technologies which have transformed the way we access information, the way we construct written work and even the way we think. Today's students are digital natives (Prensky, 2001) and their assessments do not reflect their new skills set.

A second issue of concern with assessment has been the drive towards tests that are easy to administer and easy to teach to. This approach makes it strategic to 'teach to the test' (Halonen et al., 2003) and in so doing minimise the more sophisticated and subtle aspects of student learning. The strategic approach to assessment can influence student learning (Conner-Greene, 2000) as it becomes strategic for the student to focus on the text and therefore not engage in more advanced kinds of thinking and learning because the assessments simply do not demand it (Bol & Strage, 1996).

Discussions

Skills

The most frequent response to the question in our survey (see summary in chapter 7) 'why did you choose psychology' was 'because it sounded interesting' (63 per cent of the 870 respondents). One theme of the discussion focused on the skills aspect of this inherently interesting subject. The study of psychology can develop a greater awareness of self-behaviour and also the behaviour of others. Although psychology courses do not set out to be programmes in self awareness (despite popular views to the contrary) they inevitably improve our understanding of people. An example of this can be seen in the many examination questions that require students to look at an issue from different perspectives and so compare a range of different explanations for a problem. Using this type of analysis the development of addictive behaviours, for example, can be seen to have a biological component, a social component and a personal component. Understanding that none of these approaches provides a full explanation is a powerful lesson and a transferable skill.

As noted above, psychology develops a unique and broad-based set of skills (Hayes, 1996). The current curricula require a training in the forensic thinking required for methods, the evaluative skills required for essay writing and the moral dimension introduced by a consideration of ethics and also the impact of psychological interventions. Breaking this down further, it is clear that psychology students learn a range of data skills, numeracy skills and literacy skills as well as skills of critical and moral thinking. It was felt in discussion that this strength of current curricula was not made explicit and students could be made more aware of the skills they are learning and the usefulness of them in future employment.

A specific skill that attracts a lot of comment concerns the amount of reading that students do. There was discussion about whether A-level should make efforts to require extensive reading of psychological texts to prepare students for higher education, or whether we should acknowledge that our digital native students commonly obtain their information in

different ways to previous generations. It was agreed that it is necessary to promote reading materials that engage students and encourage them to further explore the available material through whatever media are available. The online BPS blog, *The Research Digest,* was commended as an example of the excellent resources that are available.

The consideration of skills led to the reflection that current assessments at A-level are primarily focused on memory as the key skill. Even when marking guidelines refer to other skills such as evaluation and analysis, the answers are ones that are provided in textbooks and therefore the student has been able to learn this and still use their memory. This approach is encouraged by the drive for grades and teaching to the test.

A final issue with skills is to note that although it is tempting to suggest that skills are the key component of a psychology curriculum it is not possible to define psychology just by skills. This is because most of the skills overlap other subject areas and the uniqueness of psychology is the combination of skills rather than specific psychological skills.

Content

There are currently five curricula in A-level Psychology offered by four different awarding bodies. They each have their own character although they were all developed using the same general guidelines provided by the Qualifications and Curriculum Authority (QCA), which used to monitor curricula and assessments in schools. This is inevitable as each curriculum needs to distinguish itself in the market place. There was general agreement that the differences between them are too pronounced and create problems for higher education in that students come to their courses with very different prior experience of psychology. One clear suggestion was to reduce the choice elements within some curricula which further expand the possible routes to a Psychology A-level.

It was agreed that it is important to expose students to the history of psychological ideas and thinking but there were differing views of the best way to achieve this. The traditional route is to offer a component in the history of psychology or to start each new topic with a section on historical context. An alternative route would be to start with contemporary issues and problems and look back to see how psychological thinking has developed. This route would focus on the question of 'why psychology did that' rather than 'what did psychology do'. One further issue to consider when looking at historical contexts is to take account of the general historical knowledge of students. For example, several questions in social psychology such as Milgram's work on obedience were stimulated by the Second World War but for today's students this conflict finished 50 years before they were born and is not part of the living memory of their parents or even of their grandparents.

Identifying core content posed the greatest difficulty. It was agreed that progress could be made through a working party draft followed by comments from a wider constituency of psychologists (see appendix 3 for an indicative core that forms the basis for the first part of this process). The three historical roots of psychology (experimental psychology, biological psychology and social psychology) were agreed as identifiable core content areas upon which to build a curriculum.

There was agreement that current curricula have too much content and also have a reliance on older studies and ideas, many of them based in the 1960s. The main advantage of prescribed content is that higher education would be more able to plan their first-year

undergraduate courses. A more radical approach would be to provide indicative content and let teachers choose how to deliver the key ideas.

The content of the practical and methods part of the curricula was agreed to be very important for the student experience of the subject. Psychology mainly gets its evidence and tests its ideas through empirical studies. When we apply our knowledge of psychology to our teaching then we see that students learn best by doing – discovery learning. All psychology curricula should have at their core the experience of collecting, analysing and evaluating data. The conservative nature of current assessments restrict the student experience of practical work on existing curricula. The approach suggested will encourage the development of numeracy skills as well as problem solving and communication skills. Knowledge of descriptive statistics, plus an understanding of the principles of inferential statistics, was seen to be essential. Additional to this is the need to be aware of a range of qualitative techniques. By studying methods and conducting practical work students also gain a stronger understanding of theory and also of where knowledge comes from and how it develops.

Finally, on the issue of content it was agreed that psychology offers an opportunity to create a course that is interesting and relevant to the lives of students. Curricula should make best use of that opportunity and make the subject as interesting as it can be.

Assessment

The assessments define the content in that they give a clear indication of how much a student needs to know, and what level of detail they need to know. The drive towards clear and explicit marking guidelines has created assessments where students show what they know but have less opportunity to show what they understand and what they can do. This puts ever greater emphasis on remembering information and also on sections of the content that have clear and incontrovertible concepts and evidence.

There was agreement that assessment needs to be revisited in order to explore more creative and more skills-based techniques that go beyond regurgitating knowledge. One area to review is the marking guidelines which commonly identify correct answers. The issue here is that many questions we might wish to ask do not have a correct answer but would show the student's understanding through a reasoned and evidenced answer. To assess this answer it might be necessary to have a set of banded marking guidelines and to look to the professional judgements of markers to differentiate reliably between students. There is concern that in current examinations the drive for reliability has been at the expense of validity.

Some current examples of good practice were identified, including the use of scenarios that students had to respond to and also the examination of a portfolio of practical work. It was acknowledged that awarding bodies are restricted by issues of cost and ease of use but it was agreed that there are options available for making assessments more skills-based, more relevant, more engaging and even more fun.

The corollary to this is to develop the work of examiners and to work with them as fellow professionals. The last few years has seen a move away from examiner meetings as a means of developing common understandings of marking guidelines to online marking that involves a minimum of contact with other markers. To develop assessments that go beyond

requiring examiners to just identify right and wrong answers, those markers need to be trained and supported in the processes of making professional judgements.

Other issues

Sensitive issues: One of the original concerns about introducing psychology into schools was the sensitive nature of some of the content. It is inevitable when talking about human behaviour and the factors that affect it, that these discussions will touch the lives of some of the students and lead them to reflect on their own experiences. Topics such as eating disorders pose a particular problem because the demographic of A-level Psychology (mainly 16–18-year-old females) is the high risk group for this condition. Many people in the general population have issues with their eating and it is likely that many A-level classes will have students for whom eating is a concern.

There are three concerns with teaching sensitive issues. First, there is the issue of possible upset to the student, but there was general agreement that students at this age would be better served getting their information from an education course rather than from informal conversations or from internet searches. The second concern is about the ability of teachers to deal with any responses that might arise from individual students. Again, there was general agreement that the best way forward is to provide support materials for teachers and to also allow for opt-out in the curricula so that teachers can avoid a sensitive topic if they feel their class will have difficulties with it.

There is a third concern about the dangers of labelling people with different behaviours. Textbook chapters on mental health often give criteria of certain conditions and inevitably lead to a tendency to make diagnoses of mental illness. As above, it was felt that this information is important to deal with in an educational environment, especially as much of it is freely available on the internet. The issue for teachers is to guard against a voyeurism of differentness where students come to look at people with mental health issues as exotic oddities.

Diversity: The BPS report on the future of A-level Psychology in 1993 made a clear statement about promoting issues of diversity within the curriculum. In particular it reminded curriculum designers that all students should feel included within the content of psychology. There is a default in some areas of psychology to reduce people to experimental variables and hence homogenise them. Our society is diverse not only in ethnic background but also in life experience and choice of social behaviour. To ensure that as many people are included as possible it is necessary to place special emphasis on cultural, social and individual diversity. This is another way in which psychology can make a positive and unique contribution to general education and to promoting citizenship.

Psychology as a science: A-level Psychology appears in the most recent documents from Ofqual as a science subject. There was discussion as to whether this was the best position for the subject given the strength of the traditional sciences and the reluctance to include psychology in combined science curricula.

Recommendations

1. **It is important to promote the benefits of studying psychology.**
   Psychology A-level provides one of the best examples of all round education. It is based in the scientific method and develops skills of literacy, numeracy and the analysis and evaluation of data. It also develops the skills of argument construction and presentation and encourages the skill of evaluating material from different perspectives.

2. **Current assessments need to be reviewed to ensure that the skill set that is developed on A-level Psychology is fully assessed.**
   There is an unhelpful weighting to the assessment of knowledge and even when marks are awarded for evaluation these answers are commonly prepared and therefore just further examples of knowledge and memory.
   The professionalisation of marking should be supported with the aim of utilising the skills and expert judgements of teachers to best effect.

3. **A-level curricula in psychology should have sufficient common features for higher education to be able to build on the learning of A-level students when they start a degree programme in the subject.**
   A-level Psychology should show the development of psychological ideas.
   It is possible to show the development of thought through a chronology of ideas or through using current issues to look back and see the various ways that questions have been dealt with previously.
   The three historical roots of psychology (experimental psychology, biological psychology and social psychology) act as an identifiable core upon which to build a curriculum

4. **All psychology curricula should have at their core the experience of collecting, analysing and evaluating data.**

5. **Psychology curricula should be made as interesting, relevant and engaging as possible.**

6. **Psychology curricula inevitably deal with issues that touch the lives of students. These sensitive issues should not be avoided but support is necessary for teachers to deal with them effectively and productively.**

7. **All students should feel included within the content of psychology. To ensure that as many people are included as possible it is necessary to place special emphasis on cultural, social and individual diversity.**

4. Is A-level Psychology fit for purpose?

Matt Jarvis, Teacher of Psychology at Totton College, Hampshire, and Honorary Research Fellow, Keele University.

Context

The debate over the fitness for purpose of psychology A-level is not a new one. In particular many of those teaching psychology in Higher Education (HE) have been at best lukewarm towards A-level. Conway (2007) has blamed attitudes in Higher Education on an insufficiently scientific A-level curriculum that is incongruent with and poor preparation for the undergraduate curriculum. This was supported in the views expressed at a stakeholder conference held in 2006 (Turney, 2006), in which it was noted that undergraduates were often surprised at the scientific nature of a psychology degree. Delegates also widely saw the A-level as dated and with too many opportunities to avoid studying more technical areas such as neuropsychology and statistics.

However, this emphasis on the curriculum is not universal even amongst A-level critics. Others see the issues around A-level more in terms of current teaching and assessment practices that may militate against the development of subject-specific skills such as primary and secondary research, data handling and report-writing. Jarvis (2011a) has flagged up the difficulty in balancing the short-term aims of A-level teaching in the form of preparation for the next unit exam against the long-term goal of developing transferable subject skills. Successive curriculum changes have not made this easier; in 2000 A-level exams shifted away from essay assessment, and in 2008 coursework was lost, with a resultant de-emphasis on practical work and report-writing. At the same time the advent of school league tables has led to teachers focusing more strategically on preparing students for the ways they will be assessed at the expense of non-assessed transferable skills.

Surveys of psychology undergraduates (Linnell, 2003; Rowley et al., 2008) have revealed broadly positive attitudes towards A-level, with those having taken Psychology A-level judging themselves better prepared for degree-level study than those without (Rowley et al., 2008), and over 90 per cent of respondents in the Linnell survey reporting that A-level Psychology helped with their study skills and subject understanding. However, a significant proportion of undergraduates in both surveys reported that they considered their A-level experience to be poor preparation in the light of their undergraduate experience. Interestingly, modelling of the relationship between pre-degree grades and degree outcome (e.g. Betts et al., 2008) has shown that having neither A-level Psychology nor the grade achieved are related to undergraduate attainment.

Four focus groups comprising a blend of A-level and HE psychology teachers were convened with a view to exploring the question of A-level Psychology's fitness for purpose. Real-time concept-mapping (Canas, 2003) was used to record and draw links between points made by group members.

Defining the purpose of psychology A-level

It was felt that before assessing fitness for purpose it was necessary to define the purpose of A-level Psychology. A range of perspectives were expressed but there was broad agreement that A-levels have a range of purposes, and cannot be seen purely in terms of preparation

for HE (Green, 2007). Even in terms of its relationship with HE, A-level Psychology was seen by the focus groups in a range of ways:

- As a gatekeeper or 'sorting hat' for selecting students to undertake undergraduate study.
- As providing generic academic skills for students going on to undergraduate psychology.
- As providing subject-specific academic skills for students going on to undergraduate psychology.

In addition to preparation for HE, A-level Psychology was also seen as an important source of employability skills. However in most groups the point was made that the skills deriving from the study of psychology should transfer both to employment and HE. It may therefore be most helpful to think in terms of a single set of transferable skills.

Whilst most discussion centred on A-level Psychology as preparation for employment and HE, the point was also made that A-levels represent significant personal achievements, and that the personal insight and critical and scientific thinking engendered by A-level Psychology can serve as a filter for all future experience. It should therefore be recognised that A-level Psychology is an end in itself, not merely a stepping-stone to the next stage of education or life.

A-level Psychology as preparation for higher education

There was a general consensus that the current A-level Psychology does not provide good preparation for study of the subject at university. Reasons cited included dated content, an overemphasis on content over skills and assessment practices that discourage independent study and creative thinking and encourage rote-learning from a narrow range of exam-focused resources. Colleagues in HE also made the point that the current diversity of A-level specifications makes coherent planning of the first-year undergraduate curriculum more difficult. Whilst A-level teachers tended to favour some divergence between specifications, it was generally felt that a degree of convergence in content is desirable in future curriculum planning.

Whilst consensus existed amongst HE representatives that greater convergence in specifications is necessary, it was acknowledged that HE is not a unified environment but a diverse range of contexts, and that no single model for A-level Psychology would meet all the needs of university psychology departments. It was also noted that, whilst a closer alignment between the A-level and undergraduate curriculum is desirable, A-levels do not exist primarily to serve the HE agenda, even were it possible to identify a single agenda.

The content of psychology A-level

Much of the discussion in focus groups centred on the content of A-level Psychology. A number of issues were raised regarding content.

Topics taught

Currently there are five very different A-level specifications and all include options. As well as leading to an inconsistent experience for students this means that it is possible for A-level teachers and students to pick more accessible topics. It is also possible in some cases for teachers and students tactically to omit more technical areas that account for a small

proportion of marks. Some topics, for example Freudian psychoanalysis, tend to have a much higher profile at A-level than at undergraduate level. Other topics, for example those within cognitive psychology and biopsychology, which were felt to be fundamental to psychology, tend to be under-taught at A-level.

In the focus groups there was some disparity between the perceptions of this situation amongst A-level and university teachers. A-level teachers largely saw the freedom to select topics as a positive thing, helping them to cater to the needs of a diverse group of students. However, HE representatives expressed disquiet at the likelihood of students beginning a psychology degree with a distorted perception of the subject.

Historical versus contemporary content

This generated a lively discussion in all focus groups. There was wide support for the inclusion of both classic theory and research and more contemporary material at A-level. However, there was no consensus about the relative importance of old and new material. It was felt that A-level specifications should be better structured so that old and newer material can be combined in a meaningful way. There was some debate over how to operationalise 'contemporary.' It was widely felt that newer material needs to be carefully selected and that what is important is not publication dates per se but the inclusion of some modern trends in research and theory.

Overemphasis on content

Although content of A-level specifications was felt to be important, the point was also made in all focus groups that psychology is as much a set of skills and a way of thinking as a body of content, and that hitherto curriculum development has overemphasised content. It was felt that future specifications should be built as much around the skills of psychology as its content. A related point emerging consistently across groups concerned the current volume of content. This was felt to be too great to permit a focus on skills development. In particular the QCDA requirement for all students to study the five approaches to psychology specified in the Society's undergraduate curriculum was felt to be an unnecessary constraint on developing a skills-based curriculum.

Psychological skills

There was wide agreement that in future A-level Psychology specifications there should be a greater emphasis on developing skills transferable to employment and/or higher education than on learning large volumes of content.

Practical skills

Psychology was felt to be a practical, research-based subject; however, since the loss of coursework in 2008 practical work has assumed a much smaller role in the typical A-level classroom. It was felt that practical work is important in developing skills of scientific reasoning, experimental and questionnaire design, data handling and report writing. A strong consensus emerged that future specifications must do more to encourage practical work. An example of current good practice was flagged up here; the Edexcel AS-level specification requires that students undertake several pieces of practical work, and questions referring to these practicals are asked in the exams.

Psychological thinking

It was strongly felt that psychology should be an excellent medium for developing scientific reasoning, critical thinking and creative thinking (Sternberg, 1999; McGhee, 2001). These are highly transferable skills. Examples of current good practice were noted, for example the inclusion of problem-based questions in AQA's exams. However, it was also felt that developing these skills should have a much higher profile in future curriculum planning, and that the key to this is their inclusion in assessment.

A-level assessment practices

This was the area where representatives of both HE and A-level teaching communities were most critical of current practice. It was fully acknowledged that these practices have developed in the context of national policy and initiative, and that the awarding bodies should not be scapegoated. It was also noted that there are many examples of good practice in the current system. Nonetheless, a consensus emerged that some aspects of current A-level assessment are problematic.

Critical thinking versus rote-learning

It was widely felt, in particular amongst HE representatives, that current A-level assessment encourages too much rote-learning at the expense of psychological thinking. In particular it is possible to rote-learn evaluation points to answer questions that are designed to assess critical thinking. It was felt that future assessments should be designed so as to encourage the development of genuine critical thinking. Further work is needed to identify and share good practice in this area.

Practical assessment and coursework

It was strongly felt that it is highly desirable that students undertake more practical work to develop practical skills, but that in the current results-driven culture this is only achievable if practical work is rigorously assessed. Currently, A-level specifications do require that practical work is conducted and it is widely held that doing so conveys an advantage to students where research methodology is assessed. However, the focus groups felt that this is not adequate, and that future assessment needs to include direct assessment of practical work. There was some discussion of bringing back coursework; however, the limitations of coursework as a valid model of assessment were acknowledged.

Validity of marking and implications for teaching

The last ten years have seen a drive to improve the reliability of A-level marking. However, focus group members familiar with A-level marking noted that in some cases this had led to an artificially narrow range of answers being accepted by examiners – a reduction in the validity of marking. This in turn has encouraged a risk-averse culture in which A-level teachers feel unable to advocate wider reading and independent study in case students include material in answers that is correct but not accepted. HE representatives noted that many undergraduate students are correspondingly risk-averse and resistant to independent study, and it was widely felt that this is a direct result of A-level marking practices.

Extended prose

Since 2000 the amount of extended prose required for A-level assessment has declined. The number of essays was reduced in 2000 and coursework, which consisted of a practical report, was abolished in 2008. It was felt that these changes may have had the effect of

reducing the capacity for A-level Psychology to develop skills of critical argument and scientific reasoning. An example of good practice was noted, however. In WJEC most exam assessment at AS-level is through short essays, which helps prepare students for longer essays at A2. It was felt that some extended prose in assessment is highly desirable and should form part of future curriculum development.

Relative difficulty of A-level Psychology

Figures exist for the relative difficulty of A-level subjects, as measured by differential achievement by students with similar GCSE scores. In the last published review (Coe et al., 2008) psychology just emerged in the more difficult half of A-levels, at 16th of 33 subjects. Since 2008 psychology has been reclassified as a science, and efforts to harmonise it with the other sciences have led to a rise to a much higher difficulty rank in the top half dozen subjects. A-level representatives expressed great concern that this has led to an artificially high rate of failure (currently 26 per cent at AS level). The point was made that making psychology artificially difficult is certain to reduce its attractiveness and that this will have a knock-on effect on to the popularity of psychology at all levels.

Recommendations

The following recommendations emerged from focus groups:

1. **Review the content of A-level specifications so that they provide a more consistent and contemporary programme for students.**
   There should be some convergence in the content of A-level specifications and some reduction in optionality to make the experience of A-level students more consistent, whilst retaining sufficient choice for teachers to be able to personalise students' experiences of psychology.
   Review the volume of material to be studied so that the focus of learning can be on independent study and skills development, and so that the curriculum becomes congruent with the 2011 National Teaching Standards and the 2012 Ofsted Inspection Framework.
   Abolish the requirement for all A-level students to study all five approaches to psychology at both AS and A2 level in order to help reduce information load.

2. **The BPS should advise that specifications should be structured in such a way that both classic and more contemporary material are used to enhance students' understanding of the development of the subject.**
   Contemporary developments in psychology should be included, though newer material needs to be carefully selected because what is important is not publication dates per se but the inclusion of some modern trends in research and theory.
   The BPS to offer guidance to awarding bodies on classic topics to be dropped and suitable contemporary material that could be incorporated into A-level specifications, so that specifications can be coherently updated.

3. **Promote the development of assessment techniques that capture the range of student learning and provide challenge.**
   Encourage the use of assessment methods that measure critical thinking and independent study and discourage rote learning of evaluation points.
   Encourage the award of credit for a wider range of A-level answers in order to encourage A-level students to study more independently and use a wider range of resources.

4. **Promote the importance of assessing practical work at A-level**
   Assessing practical work directly will ensure that all A-level students conduct practical work and have the chance to develop practical skills.

5. The relationship between pre-tertiary psychology and higher education

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Context

Given that A-levels are the most usual entry requirement for higher education it is obviously important that the relationship between pre-tertiary and HE psychology be considered. This importance could be set to increase even further in future, given the current Secretary of State's expressed desire to see research institutions such as Russell Group universities determine both the content and assessment format of A-levels (BBC, 2012). This desire has emerged from his concern that A-levels fail to prepare students adequately for university (ibid.). In the recent Ofqual consultation (Ofqual, 2012b) they suggest that any new curriculum must have 'the support of at least 20 UK universities, at least 12 of which are respected in the specific field of study and/or from those deemed to be leading research institutions' (p.24).

This position, however, does not appear to take account of the fact that not all A-level students choose to progress to university and that A-levels therefore also need to prepare students for other paths. If the Government's plans progress, then the view that the Russell Group has of psychology will carry significant weight. Despite its broader recommendation that science subjects are desirable, their *Informed Choices* document does not include psychology as a 'facilitating subject for HE' (Russell Group, 2011); apparently not recognising psychology as a science. As yet it is unclear what impact the publication of this document might have on future A-level Psychology recruitment. Given that few psychology degrees require psychology A-level specifically as an entry requirement it could be argued that HE psychology has fuelled this document's position and supported a devaluing of psychology A-level. There has been some dismay expressed by both those within the pre-tertiary and HE sectors at the Government's desire to involve the Russell Group in A-levels (e.g. see Boffey, 2012 and million+, 2012). The relationship between pre-tertiary and HE psychology does need consideration, regardless of whether or not these changes are implemented.

The BPS has an influence on both HE and pre-tertiary psychology, although this influence is far stronger in HE because of BPS accreditation of degrees. For pre-tertiary education the influence is limited to discussions with awarding bodies as to what might be appropriate content; but the exam boards can choose to disregard this advice. Suggestions for BPS accreditation of A-levels are unlikely to be advanced because of the private business status of awarding bodies' boards; unless they themselves expressed a desire for this it is unlikely ever to occur. Even if they were to do so the financial costs involved for the BPS are likely to prohibit this. The guidance the Society offered to pre-tertiary awarding bodies regarding content has had considerable similarity with the required content for degree course accreditation. This may be an area that requires reconsideration. Given the number of students studying A-level Psychology who will not progress on to HE, and the numbers who will progress but will not study psychology, pre-tertiary psychology has an opportunity to foster genuine interest in the subject across wider society. This could be stifled if students have to work their way through content stemming from required sub-

disciplines that may be of far less relevance to those not continuing further within psychology. Even for those who continue on to a psychology degree a separation of content could have advantages. HE has to assume no prior knowledge of psychology, because A-level Psychology is not a required subject; this can make aspects of the first year degree curriculum repetitive for students (there can be a similar problem with the interface between GCSE and A-level Psychology).

The BPS also plays a vital role in lobbying the Government with their concerns about psychology education across all levels. The Psychology Education Board has lobbied hard on issues crucial to pre-tertiary psychology; for example, the removal of funding from PGCE courses. However, there remains a perception that the Society is little concerned with pre-tertiary psychology, instead being dominated by the concerns of HE academics and practitioners. This is far from the case. The funding of the Chicheley event and this resulting report demonstrate the importance that the BPS places on pre-tertiary psychology. There is, however, a clear need to have a more active engagement within the BPS from pre-tertiary psychology teachers. All Society members employed in pre-tertiary education can join the Division of Academics Researchers and Teachers in Psychology (DARTP) and, if they have an accredited undergraduate degree, can become Chartered psychologists through this route. Admittedly, many pre-tertiary psychology teachers will not have the necessary qualifications for Chartered status; however, they can still become BPS subscribers and this would also allow them membership of the DARTP. Currently pre-tertiary psychology teachers are more likely to join the Association of Teachers in Psychology (ATP) than the BPS. The Society and the ATP have a supportive collaborative relationship and can work together to promote their respective benefits.

A nexus or a rift?

Currently the relationship between pre-tertiary and HE psychology appears to be conflicted. Two oppositional views emerged from the discussions, although both shared a common starting point. This was that the pre-tertiary and HE sectors know very little about what occurs in the other. The disagreement around this then centred on whether or not this was a problem that mattered and needed to be addressed. Some gave examples where contact with HE has not been positive; with HE outreach being viewed cynically, with the sole intent being to market degree courses and recruit potential students. Where this had occurred it had led to a separatist view whereby pre-tertiary teachers wanted nothing to do with HE. However, others could see the potential for mutual benefits should an on-going and positive dialogue be entered into between universities and schools and colleges. Much of this dialogue is likely to occur at a local level but the BPS can play an important role in facilitating wider relationships. An example of this is the DARTP inaugural conference where pre-tertiary teachers made a vital contribution to the event's success. This conference could play a key role in bring together pre-tertiary teachers and HE lecturers. However, there can be difficulties for pre-tertiary teachers being able to obtain both the funds and the time to attend conferences. Despite this, these are preferred over virtual conferences or webinars because of the opportunities they provide for networking and building meaningful relationships. Where pre-tertiary teachers do present at conference they should consider encouraging their employing institution to use this in their own public relations material; this may make it somewhat easier to obtain support for attendance.

HE lecturers emerge as somewhat ill informed as to the nature of the contemporary A-level system. There is a tendency to use one's own A-level studies as the template for what currently occurs. However, even the newest lecturer will be almost a decade distant from their own A-level studies; in the meantime A-levels have gone through radical change. For example, few HE lecturers are aware that there is currently no coursework assessed in psychology A-level, or that the exam does not require the writing of essays. This could lead to unfair expectations being placed on first-year degree students by lecturers who have not appreciated students' limited experience of essay writing.

One key difference between pre-tertiary and HE is the nature of the inter-personal relationships between staff and students. Pre-tertiary teachers may stay in touch with their students for many years after they leave and so can maintain contact during degree courses. This can be an important source of feedback and can enhance pre-tertiary understandings of HE. However, this student feedback can also be the source of misunderstandings. For example, students have fed back information such as most lecturers not knowing their names or understanding their individual circumstances. This can seem shocking to pre-tertiary teachers who tend to know their pupils very well and may well feed teachers' negative views of HE, suggesting lecturers are not concerned with their students. However, in the same way that HE lecturers misuse their own A-level experiences as a template for current A-level experiences, teachers are also distanced from contemporary HE.

The expansion in HE has been both enormous and swift, with psychology being one of the largest growth subjects. Teachers who use their own degree experiences as a template for what currently occurs in HE will likely be in error. In some institutions a lecturer might easily teach across all three years of an undergraduate degree as well as engaging in some postgraduate teaching. This could involve lecturing to over a thousand students in the course of a single week, making it impossible to have anything other than a superficial relationship with the majority of students. Every student is likely to have a personal tutor and to be well known to some staff through small group teaching; but despite these close relationships they may still legitimately perceive that they are unknown to the majority of the academic staff.

There is also a perception amongst pre-tertiary teachers that HE lecturers are largely unqualified with regard to teaching. Again this is somewhat out of touch with the contemporary situation in HE as for some time universities have generally required all new staff to complete a PGCHE, as well as expecting existing staff to become Fellows of the Higher Education Academy. Despite this there is an opportunity here for HE lecturers and pre-tertiary teachers to learn from one another given that they largely deliver very different forms of teaching. Pre-tertiary teachers can be highly skilled in small groups teaching; whereas HE lecturers are likely to be highly skilled at large group presenting and public speaking. In addition, the freedom that HE lecturers have (in deciding on their own module content, delivery and assessment) has led to an expansion in the use of techniques such as enquiry-based learning and e-learning. There is potential for pre-tertiary and HE to share their respective skills base to the benefit of all.

Issues for consideration

A number of specific issues emerged during the discussions. One key issue related to the pre-tertiary curriculum. This largely centred around a concern that contemporary psychology does not sufficiently feed into the pre-tertiary curriculum, with the key studies being considered having largely been superseded by other theories. This results in an A-level that could be considered the 'history of psychology' rather than psychology per se. Pre-tertiary teachers also expressed a view that the curriculum has become overloaded in recent years and that this has detrimentally impacted on both the possibility of 'learning through doing' in the classroom and the fun to be had in learning psychology. These points will not be explored further here, given that the curriculum is addressed in far greater detail elsewhere in this report.

The language used within pre-tertiary and HE psychology can create some misunderstandings, particularly where the same term is used in both pre-tertiary and HE but with a different intended meaning. For example, both require *'critical evaluation'* but the meaning that this term carries differs considerably across the two levels. At pre-tertiary level students' critical evaluation involves consideration of critiques offered by others; whereas in HE this would be considered as description and only the student's own ability to offer critique would be considered as demonstrating critical evaluation. It is only through dialogue that distinctions such as this become evident. Without this dialogue HE lecturers can assume students understand what they are requiring, whereas the students may have a very different understanding based on their pre-tertiary understandings. It is not problematic that terms are used differently across pre-tertiary and HE. What is important is that it is known so that students can be communicated with appropriately.

HE is predicated on the student being an independent, albeit facilitated, learner. HE students are encouraged to read widely and where they bring in materials unfamiliar to the lecturer this is likely to result in extra credit. At pre-tertiary level using different materials in this way could result in disadvantage for the student because of the use of model answers that can be crudely applied. Pre-tertiary pupils therefore may be discouraged from wider reading and instead advised to depend on a single set text (although this may vary somewhat across exam boards). This is a significant difference in approach. Again, the crucial importance here is not that the difference exists but for both pre-tertiary teachers and HE lecturers to know about this difference and to adjust both their expectations of students and their teaching delivery accordingly. A related issue is that pupils may also be discouraged from offering their own arguments, believing that they need to mirror those assessing them in order to do well, which is not at all the case in HE.

The teaching of statistics within A-level Psychology is unpopular with students. Given that most universities now use SPSS and eschew hand calculations this could easily be reconsidered at pre-tertiary level. Most if not all calculations for analysis at this level can be carried out on simpler and readily available programmes such as Excel.

Employers have serious misunderstandings about psychology regardless of whether it is studied at pre-tertiary level or in HE. These misunderstandings can then adversely affect education policy makers.

The loss of coursework from pre-tertiary assessment has reduced the opportunities for teaching certain skills; for example, those relating to appropriate citations as opposed to plagiarism.

Parents are heavily involved in their children's pre-tertiary education and create a serious pressure for staff. This has been generally absent from HE; however, this is beginning to change and the introduction of fees is likely to increase this. HE has an advantage in that students are over 18 and legally adults and so can, to some extent, legitimately resist this pressure. However, other pressures felt by pre-tertiary staff are also beginning to affect HE staff more severely, notably league tables and the publication of performance statistics such as graduate employment rates and percentage rates for degree classifications. One key difference that remains relates to the scrutiny that staff experience. HE courses are often reviewed at a wider departmental level rather than there being any focus on particular staff, modules or even degree courses. Where HE staff are observed this is generally done as a developmental exercise, conducted by peers, in order to learn from rather than monitor others and to facilitate reflexive practice. HE lecturers do not always realise the pressure that such scrutiny can place on pre-tertiary staff or appreciate that pupils have undergone similar monitoring of their own performance and therefore can feel similar pressures to achieve.

The way that pre-tertiary education is funded is based on pupil numbers. This can lead to pupils being encouraged to take A-levels even where they are not academically inclined, neglecting other potential strengths. Staff are then pressured to obtain good results regardless of pupils' ability and where this is not possible both staff and pupils can feel like failures.

Recommendations

All recommendations emerged during the discussion process.

1. The BPS should be proactive in trying to increase membership amongst pre-tertiary psychology teachers. This will be vital in fuelling the dialogue between pre-tertiary psychology and HE. There are a number of ways this could happen and the following are merely offered as starting points for further discussions:
   - Consider promoting the subscriber route to psychology teachers without GBC, drawing attention to the benefits this membership would yield (for example, journal access, CPD discounts).
   - Consider heavily incentivising membership for psychology teachers and appropriate PGCE students. This would allow them to experience the benefits of BPS membership for themselves and thereby encourage continued membership.
   - Explore ways, in association with other invested organisations (e.g. ASE), to help raise the profile and value of chartered status.
2. The BPS should explore ways in which to better promote subscriber level membership amongst A-level students. This would open up a range of resources to students. It would also encourage the development of a relationship with those who go on to become eligible for other levels of membership.
3. The BPS should work proactively with the ATP to enhance understandings between pre-tertiary and HE psychology and to explore reciprocal possibilities both to promote the other organisation and to preserve a place for each within the other's domain.

4. The BPS should continue its efforts to better explain the value of psychology education for employers and to clarify employers' misunderstandings about the subject.
5. The DARTP is crucial in maintaining an ongoing dialogue between pre-tertiary and HE psychology and should continue to be supported by the wider BPS in their efforts towards this. There are a range of ways in which this could occur – the following are merely intended as initial suggestions to stimulate further discussions:
   - Possible expansion of the website to include a specific section on pre-tertiary psychology.
   - Provision and maintenance of a suitable reading list for pre-tertiary students provided via the website. This could include texts that laid a foundation for any later degree-level study. It could also include texts that support the wider psychological interests of a lay readership; in support of those students who will not continue with psychological studies but also to promote wider interest in the subject of psychology.
   - Build on the success of the DARTP inaugural conference to continue the focus on pre-tertiary education and encourage teachers' engagement. Also, to explore providing events in ways that are more accessible for pre-tertiary teachers, for example, timed at weekends or through webinars, etc.
6. BPS publications should continue to build on their excellent work and further focus on both the market of A-level students and the wider lay market.
7. Individual relationships between particular universities and schools and colleges should be fostered to mutual benefit. The Higher Education Academy could be usefully drawn upon for assistance and support in such efforts.

6. Training and support for psychology teachers

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The rapid development of psychology as a school subject (see chapter 2) has largely happened without changes in the infrastructure to support and train psychology teachers. This has meant that in the first instance schools were using teachers of other subjects who then trained themselves up as A-level Psychology teachers or employing psychologists who were not trained as teachers or who had trained to teach a different subject area. Training events have largely been offered by awarding bodies and by commercial training companies. These discussions used the survey of teachers commissioned for this report as a starting point (see Appendix 1 for a summary of the survey responses).

PGCE in Psychology

A dedicated PGCE in Psychology was introduced in 2008. Its introduction became a necessity due to the high volume of A-level Psychology students. Its introduction was also supported by BPS and ATP representations, made to appropriate bodies. Schools and colleges reported redesignating teachers from other A-level subjects to teach psychology due to a shortfall in trained staff. In 2011 there were 54,940 A-level Psychology students (JCQ, 2011) making psychology the fourth most popular A-level in the UK.

Prior to 2008, a significant majority of psychology teachers trained on one of the four social science PGCEs (Manchester Metropolitan University; Institute of Education, London; University of Leicester and Keele University) to achieve Qualified Teacher Status (QTS). A proportion of the places on the PGCE social sciences were allocated to psychology (for example of the 23 places at Manchester Metropolitan University in 2008, 12 of the students had a psychology background). Teachers wanting to train in post 16 only followed the PCET (Post Compulsory Education and Training) route. A problem with this, encountered by a number of staff, was that this route did not confer QTS. Colleagues with PCET who left the tertiary sector to work with 11–18-year-olds in schools, were often paid as unqualified staff. The reason given was that, unlike PGCE graduates, these trainees were not trained in at least two national curriculum stages. The assessment only route (AO), introduced in 2011, has greatly assisted those who do not possess QTS. Teachers who already possess a PCET qualification can now submit a portfolio of evidence and work with a HE partner to achieve QTS.

In 2008 the number of pupils doing A-level Psychology was 52,048 (JCQ, 2008) and that same year the Teaching Development Agency (TDA), now the Teaching Agency (TA), allocated 60 PGCE psychology places to six institutions in England (Manchester Metropolitan University; University of Keele; Edge Hill University; University of Worcester; University of Wolverhampton and Christ Church Canterbury University). In 2012 the TA allocated 30 training places to four institutions (Edge Hill and Keele no longer offer a psychology PGCE). The number doing A-level Psychology in 2011 was 54,940, that is 2892 more candidates yet 30 less training places, which seems neither adequate nor logical. It also begs the question, who is teaching these extra A-level Psychology students and are they adequately qualified to do so? It is possible students are being taught psychology by a teacher trained in another subject, with very little or even no knowledge at all of psychology. A summary of the training numbers is shown in table 5.1.

University	PGCE Social Science 2008/9	PGCE Psychology 2008/9	PGCE Psychology 2013/14	PGCE Social Science 2013/14
Edge Hill	N/A	10	N/A	N/A
IOE, London	27	N/A	N/A	20
Keele	15	10	N/A	N/A
Leicester	12	N/A	N/A	15
Manchester Metropolitan	23	10	8	21
Wolverhampton	N/A	10	9	N/A
Worcester	N/A	10	13	N/A
Total	77	60	30	56

Table 5.1: Allocation of training places to social science and psychology at UK universities.

The number of A-level Psychology teaching posts was observed for one week in the *Times Educational Supplement* (TES, 3 February 2012). There were 48 A-level Psychology teaching posts available. One week only was observed, not at the peak recruitment period. It should be noted that in 2012 the TA allocated 114 citizenship PGCE places nationally, yet in the TES on the same date that there were 48 psychology posts there were only two Citizenship teaching vacancies advertised. There appear to be enough teaching posts available but not enough training places. We may therefore have a training crisis in years to come. There are not enough training places for psychology PGCE to produce sufficient, properly qualified staff to fill the number of teaching posts available, because of the large and increasing number of pupils taking A-level Psychology.

The calibre of potential trainees applying is also improving significantly. Manchester Metropolitan require candidates to have at least a 2:1 Psychology degree and at least one year's experience working in a school, as a teaching assistant, cover supervisor, and so on. In 2012 there were 103 applicants for the PGCE in psychology (eight places) and 150 for the social sciences PGCE (21 places). These numbers were only calculated until December 2011 when the course closed. If the course had been left open until June 2012, it is estimated there would have been approximately 800 applicants for each course. Thus we have teaching posts available and very well qualified candidates desperate to be on courses but a significant lack of training placements.

In 2012 the BPS commissioned a report on teaching psychology in schools and colleges (BPS, 2012). There were 210 respondents, 81 per cent of whom said that they had an undergraduate or postgraduate degree in psychology. This is a significantly higher proportion of respondents compared to the 47 per cent identified in previous research by Maras and Bradshaw (2007). However, 29 per cent of the sample teaching psychology in schools did not have at least a graduate qualification in the subject. Only 41 (20.2 per cent) said they had psychology as part of teacher training and 11 (5.4 per cent) respondents stated that they were self-taught. These results suggest that the majority of people appear to be taking the traditional route into teaching psychology with undergraduate degrees.

However, it is concerning that 5.4 per cent of teaching staff are self-taught. Although 210 respondents is greater than previous surveys it is not possible to estimate how representative they are of the population of psychology teachers. Awarding bodies could play a part in making further contact with the widest possible sample of teachers.

It must be noted that Free Schools and, from 2012, Academies can now employ teachers without any teaching qualifications. It is exceptionally concerning that psychology may be taught by an unqualified teacher. This is especially worrying when we consider that the first experience a student in a school or college may have of sensitive issues, such as mental health and emotional well-being, could be taught by someone without the knowledge of how best to deliver this.

In the case of Scotland there are no teacher-training courses at Scottish Teacher Education Institutions (TEIs) for psychology and no GTCS registration category for psychology (secondary), therefore there is no direct route to Qualified Teacher Status (QTS) in psychology.

Bursary for psychology training

PGCE psychology trainees for 2012 have been penalised by being given no training bursary, alongside other 'non priority subjects' such as sociology, media and leisure and tourism. The trainees will therefore be required to pay up to £9,000 in university fees for their course (DoE, 2011). If, however, a trainee has a degree in another 'science' subject such as biology, that trainee will receive a training bursary of up to £12,000 (see table 5.2). There is consequently concern about the detrimental impact the recent bursary changes will have both on the quality of psychology teachers and the potential retention rates on courses in future years. The Society and the ATP have been exceptionally vocal and proactive in supporting a campaign not only to reinstate bursaries withdrawn in 2011 but also, by lobbying government, to fight for a fair and inclusive bursary system. When psychology was redesignated as a science in 2006, the government was selective about what is deemed a STEM science. Psychology is not regarded as a science subject in terms of initial teacher training. It is worrying that people with very good psychology degrees may train as a biology or other science teacher in order to acquire the training bursary.

Currently, however, the significant number of people still applying for the very limited number of training places, despite the lack of financial incentives, shows the demand for teacher training and the desire to teach psychology.

Further training and support

Training is a career-long requisite for all psychology teaching staff. Schools often want continued professional development (CPD) that improves their grades but not necessarily that which delivers sound pedagogical significance. The majority of CPD in psychology is centred on external courses run by external agencies or awarding bodies, or through conferences, such as the ATP annual conference.

In the 2012 BPS survey, respondents were asked how often they took external courses. In response 51.5 per cent indicated that they did so occasionally and 19.4 per cent stated that such participation was frequent or ongoing. Teachers reported that they would like to engage in more training; however, schools were either unable to fund this or staff were not allowed out under the workload agreement (2005) preparation, planning and assessment

Table 5.2: Department of Education summary of the financial incentive scheme that will operate in 2012/13 (DoE, 2011).

Degree classification	Physics, mathematics, chemistry, modern languages	Other priority secondary specialisms and primary (see note 1)	General science and non-priority secondary specialisms (see note 2)
First	£20,000	£9,000	£0
2.1	£15,000	£5,000	£0
2.2	£12,000	£0	£0

Notes

1. Art and design, design and technology, economics, engineering, English, dance, drama, geography, history, information and communications technology, computer science, classics, music, biology, physical education, primary, and religious education mainstream post-graduate ITT courses attract £9000 bursaries for trainees with a first and £5000 for trainees with a 2.1.

2. General science, business studies, citizenship, applied science, health and social care, leisure and tourism, media studies, psychology, social sciences (except economics) ITT courses attract no bursary.

(PPA) time. Respondents were required to indicate the frequency of their engagement with subject associations such as the ATP or the BPS: 69.1 cent of respondents indicate that they do at least occasionally engage with their subject associations. The implication for this is that the ATP and the BPS may be able to offer more affordable and time-appropriate CPD sessions.

Teachers were asked which factors they found to be most supportive in terms of making progress. Overall, a total of 79 respondents (43.2 per cent) said that they found support from within their school or college, whether that be from a colleagues, fellow psychology teachers or from their school heads. It is noteworthy that 37 respondents (20.2 per cent) said that they felt supported after attending the ATP conference and 33 (18 per cent) said that they felt their progress was due to their own personal motivation, interest in teaching and interest in psychology. A worrying feature often unique to A-level Psychology teaching, is the number of staff in single, standalone departments who have no one in their school to discuss psychological issues with.

Only 26.2 per cent of respondents indicated that they had been assigned to mentor/coach a trainee or another member of staff; just under 70 per cent stated that they had not had a coach/mentor assigned to them in the last 12 months; 43.2 per cent reported that collaborative learning was frequent or ongoing in their workplace, and 30 per cent stated that it occurred occasionally. It should be noted that staff who mentor a trainee psychology teacher state that this is an excellent form of CPD for their own professional development.

Opportunities for Research

Half of the respondents indicated that their school did not encourage them to use research findings to improve their practice, whilst 28.5 per cent did feel encouraged to do so. Over 60 per cent of respondents disagreed that they have frequent opportunities to discuss relevant research findings with their colleagues. Respondents were split about

50/50 on whether or not they had undertaken their own research and enquiry to improve their practice in the last 12 months. Only 34.2 per cent indicated that their school encouraged them to undertake their own enquiry. A majority (62.6 per cent) stated that they did not have time to conduct their own research and similarly 62.9 per cent reported that they would like more opportunities to do their own research to improve their teaching. This suggests that there is scope for the Society to support and facilitate teachers' opportunities for research activity; to explore what this would constitute and how it could best be delivered.

Exam board CPD

In 2012, the examinations regulator Ofqual, under new guidelines from the Department for Education, stated that face-to-face training meetings for teachers will be phased out (*The Guardian*, 2012). Such meetings will only continue for teachers marking controlled assessments, supervised coursework and for the introduction of new exam specifications. Web-based and online conferences will be permissable. Over 4,000 examination board seminars, in all subjects, took place in 2011. Psychology teachers report that face-to-face meetings give them the opportunity for rich psychological conversation and the development of pedagogy with colleagues. They also used these events as a platform to develop informal local networks. One problem resulting from examination boards no longer being able to deliver examination-specific CPD, is the possibility that misinformation may spread quickly. Most teachers use their textbook as the main source of information on how to deliver psychology. A view was expressed that it would be appropriate for the BPS to accredit a Research Methods section in all of the textbooks as a means of clarifying terminology.

Providers of CPD

The main difficulty with CPD is knowing where and how to access it: there is a wealth of current CPD available but some new staff find it difficult to access. The National Science Learning Centre (NSLC) and regional centres run excellent CPD. The NSLC offers a course for people who are not psychology specialists to retrain to teach psychology. It reports that the main areas people struggle with are ethics, approaches and research methods. The National and Regional Science Learning Centres may be able to assist by gathering information for a database on who teaches A-level Psychology and where they teach it. Schools could then work in regional hubs delivering CPD to each other through the science learning centres. It is important to be able to access all psychology teachers to find out what their support needs are.

There is a need to have a number of ways to get into pre-tertiary psychology departments to support their staff. This suggests that there is scope for the Society to increase its support of CPD for teachers, both through face-to-face delivery and through e-learning.

The BPS, through the SCOPTE and the DARTP, is willing to support teachers with online programmes and by delivering dedicated CPD units; however, it needs to know what the community needs are. Rowley and Dalgarno (2010) report that psychology teachers indicated that they felt least confident teaching biological, cognitive and statistics units As Banister (2003) found that these are the very areas in which undergraduate students could be better prepared, this suggests that teachers require additional support and resources to facilitate and encourage teaching of these core areas. The BPS found similar results in its

2012 survey. Respondents indicated that areas they struggle to teach are biological psychology with 16 (8.7 per cent) and 14 (7.7 per cent) listing cognitive psychology and statistics.

Teachers found they are able to join the ATP but were unsure about the BPS. If teachers are not subject specialists they may not be able to join, as their degrees would not confer GBC. It is possible to join the Society as subscribers and it was agreed that this information has to be made readily available to teachers. If teachers say their most popular resources are textbooks, information from examination boards, *Psychology Review* magazine and the online facility Psychexchange, then the ATP and the BPS need to advertise through these media. Higher education departments also need to engage more with pre-tertiary psychology, for example running contemporary psychology days for staff and students

There is an established, excellent community in psychology and the dialogue between higher education institutions and pre-tertiary psychology is developing. What is now needed is for all organisations to work together to develop this form of mutual social and academic support, to enhance the learning experiences of staff and students.

Recommendations

1. The SCOPTE, PEB and DARTP should work together to explore ways in which support can offered for teachers new to teaching psychology at a pre tertiary level.
2. The Society should continue to collect evidence to lobby government to rethink numbers of training placements for psychology and to introduce a training bursary for psychology initial teacher training (ITT).
3. The Society should encourage its members who publish psychology texts to include contact the details of the BPS and the ATP within these.
4. The Society should consider starting a regular census and survey of pre-tertiary teachers. This would enable a better understand of their experiences and concerns and also encourage better engagement with the BPS
5. Exam boards should encourage pre-tertiary teachers to engage more with both the BPS and HEIs. Further promote the community of psychology teachers through encouraging greater engagement from higher education institutions.

Appendix 1. Summary of the survey of psychology teachers commissioned for this report

Joe Liardet and Lisa Morrison Coulthard, British Psychological Society

Executive Summary:

- Overall, 60.1 per cent of respondents indicated that they had completed an undergraduate degree in psychology. Only 27.1 per cent had an A-level in the subject, while 20.2 per cent had studied it as part of teacher training. 19.7 per cent had studied as part of a combined honours degree and 18.7 per cent had completed a Doctorate or Masters in Psychology.
- 47 per cent of respondents indicated that they taught A-level through the AQA A exam board with 25.7 per cent indicating that they taught OCR A-level Psychology and 22.8 per cent teaching GCSE Psychology.
- High levels of agreement were expressed in relation to the statements
  - 'The curriculum for A-level Psychology is contemporary.'
  - 'The curriculum is interesting.'
  - 'The curriculum is interesting to students.'
  - 'It is important for students to have plenty of experience of practical work.'
  - 'A-level students experience a good range of research methods in their practical work.'
  - 'Students wishing to study psychology at university should be required to hold an A-level in the subject.'
  - 'A-level Psychology students with a good grounding for studying the subject at university.'
  - 'A-level Psychology provides students with the analytical and evaluative skills required to do well at university'.
- Respondents were more likely to disagree with the following statements:
  - Topic areas are NOT covered in sufficient depth in the Psychology A-level; and
  - It is NOT important to teach psychology students at A-level how to use statistical tests.
- Just over half of the respondents (54.9 per cent) agreed with the statement, 'It is important that the content of the A-level Psychology syllabus should be aligned closely with what is taught at university', whereas 37.8 per cent disagreed.
- 61.2 per cent of respondents agreed that more should be done to attract males to study psychology at undergraduate level. 20.2 per cent disagreed and 18.7 per cent indicated that they were not sure.
- 62.7 per cent of respondents agreed/strongly agreed with the statement, A-level courses would benefit from greater concentration on everyday psychological issues. 28 per cent of respondents disagreed/strongly disagreed.
- The range of specifications in the curriculum was identified as one of the main factors that teachers like, with 109 (25.1 per cent) and 91 (20.9 per cent) saying that the inclusion of applied psychology and its inclusion in everyday life was a big like. 79 (18.2 per cent) felt that the curriculum encourages the development of an understanding of scientific method and evaluative and analytical skills.

- It was felt that the curriculum needed to reintroduce coursework, with 56 (17.9 per cent) of participants stating that they felt that this was important. 51 (16.3 per cent) felt that the curriculum needed less content to allow for more in depth study. Greater inclusion of research methods/practical components was another factor that it was felt should be taken on board by the curriculum with 50 (15.9 per cent) suggesting this as a potential improvement.
- 75 respondents (38.8 per cent) said that they felt most comfortable teaching research methods with 51 (26.4 per cent) feeling most comfortable teaching social psychology. 37 (19.2 per cent) of respondents said that they felt confident teaching all areas of psychology.
- 20 respondents (38.8 per cent) said that there were no areas that they didn't feel comfortable teaching. The most common areas that respondents said that they struggle to teach are biological psychology, with 16 responses (8.7 per cent) and cognitive psychology and statistics, with 14 responses (7.7 per cent).
- 103 (50.7 per cent) in total said that they would welcome support from the examination boards or the BPS on the issue of ethics with 45 (22.2 per cent) saying that they disagreed.
- Psychexchange (24.7 per cent), textbooks (24.2 per cent) and YouTube (17.7 per cent) were by far the most popular resources.
- Only 26.2 per cent of respondents indicated that they had been assigned to mentor/coach someone. Just under 70 per cent stated that they had not had a coach/mentor assigned to them in the last 12 months. 43.2 per cent reported that collaborative learning was frequent or ongoing in their workplace and 30 per cent stated that it occurred occasionally.
- Approximately 70 per cent of respondents stated that they had frequent or occasional engagement with subject associations such as the ATP or the Society. 22.1 per cent of respondents stated that they were studying for a qualification (e.g. Masters). A higher proportion (70 per cent) reported either ongoing or occasional participation in an external course.
- 79 respondents (43.2 per cent) said that they found support from within their school or college, whether that be from a colleagues, fellow psychology teacher or from their school heads. 37 (20.2 per cent) respondents said that they felt supported after attending the ATP conference and 33 (18 per cent) said that they felt their progress was due to their own personal motivation, interest in teaching and interest in psychology.
- 50 per cent of respondents indicated that their school did not encourage them to use research findings to improve their practice, whilst 28.5 per cent did feel encouraged to do so.
- Over 60 per cent of respondents disagreed that they had frequent opportunities to discuss relevant research findings with their colleagues.
- Respondents were roughly split 50/50 on whether they had undertaken their own research and enquiry to improve their practice in the last 12 months or not.
- Only 34.2 per cent of respondents indicated that their school encourages them to undertake their own enquiry.
- 62.6 per cent stated that they did not have time to conduct their own research and similarly, 62.9 per cent reported that they would like more opportunities to do their own research to improve their teaching.

Appendix 2. Summary of the survey of A-level Psychology students commissioned for this report

Phil Banyard, Nottingham Trent University

The survey was created online at SurveyMonkey. The link was distributed to teachers of psychology through the mailing list of the Association for the Teaching of Psychology and also through the online facility PsychExchange. This sampling technique reached teachers of psychology who then forwarded the link to their students.

There were 872 responses of which 75.5 % were female and 24.5 per cent male which reflects the gender split observed in examination entries at A-level. The following tables show the responses to the tickbox questions in the survey.

Table A2.1: Why did you choose to study psychology?

Answer options	Response %	Response count
I want a career in psychology	15.2%	131
I want to study it at university	7.8%	67
It sounded interesting	61.9%	535
It is something different to study	8.7%	75
I like the teacher	0.2%	2
My friends had chosen it	0.1%	1
I had read about it	0.8%	7
Other	5.3%	46
	answered question	**864**
	skipped question	**10**

Table A2.2: Compared to other subjects I am studying or have studied psychology is (1)

Answer options	Response %	Response count
Much more interesting	47.0%	408
A bit more interesting	29.1%	253
About the same	13.7%	119
A bit less interesting	7.4%	64
Much less interesting	2.8%	24
	answered question	**868**
	skipped question	**6**

Table A2.3: Compared to other subjects I am studying or have studied psychology is (2)

Answer options	Response %	Response count
much more difficult	14.9%	129
a bit more difficult	34.9%	302
about the same	33.3%	288
a bit less difficult	14.1%	122
much less difficult	2.9%	25
	answered question	**866**
	skipped question	**8**

Table A2.4: Compared to other subjects I am studying or have studied psychology is (3)

Answer options	Response %	Response count
Much more work	25.3%	219
A bit more work	36.3%	315
About the work	30.8%	267
A bit less work	6.5%	56
Much less work	1.2%	25
	answered question	**867**
	skipped question	**7**

Table A2.5: Compared to other subjects I am studying or have studied psychology is (4)

Answer options	Response %	Response count
Very much as I expected	19.7%	171
Fairly much as I expected	52.1%	451
Different to what I expected	28.2%	244
	answered question	**866**
	skipped question	**8**

Table A2.6: Do you want to study psychology further when you have finished this course?

Answer options	Response %	Response count
Yes	30.6%	264
Maybe	36.8%	318
No	32.6%	281
	answered question	**863**
	skipped question	**11**

Table A2.7: I am glad I chose to study psychology

Answer options	Response %	Response count
Strongly agree	50.9%	440
Agree	31.7%	274
Neither agree or disagree	10.6%	92
Disagree	4.1%	35
Strongly disagree	2.7%	23
	answered question	**864**
	skipped question	**10**

Respondents were also asked to respond to some open questions. Data from three of these are presented in the format of a word warp.

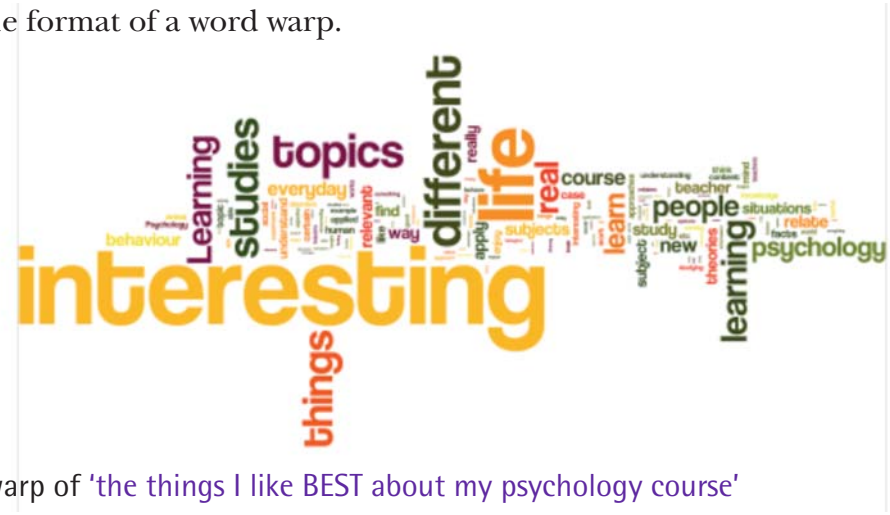

Figure A2.1: Word warp of 'the things I like BEST about my psychology course'

Figure A2.2: Word warp of 'the things I like LEAST about my psychology course'

Figure A2.3: Word warp of responses to 'who do you think are the THREE most important or influential psychologists?'

Appendix 3. GCE A-level and AS trends (JCQ, 2011)

GCE A-level trends

Rank 2011	Rank 2010	Subject	% of total	No. of candidates
1	(1)	English	10.38	89,980
2	(2)	Mathematics	9.57	82,995
3	(3)	Biology	7.15	62,041
4	(4)	Psychology	6.47	56,133
5	(5)	History	5.87	50,897
6	(8)	Chemistry	5.54	48,082
7	(7)	Art and Design subjects	5.30	45,959
8	(6)	General Studies	4.73	40,984
9	(9)	Media/Film/TV Studies	3.90	33,855
10	(12)	Physics	3.79	32,860

GCE AS trends (JCQ, 2011)

Rank 2011	Rank 2010	Subject	% of total	No. of candidates
1	(1)	English	10.38	89,980
2	(2)	Mathematics	9.57	82,995
3	(3)	Biology	7.15	62,041
4	(4)	Psychology	6.47	56,133
5	(5)	History	5.87	50,897
6	(8)	Chemistry	5.54	48,082
7	(7)	Art and Design subjects	5.30	45,959
8	(6)	General Studies	4.73	40,984
9	(9)	Media/Film/TV Studies	3.90	33,855
10	(12)	Physics	3.79	32,860

Appendix 4: What makes a psychology graduate distinctive?

(adapted from Hayes, 1996)

One of the important factors making psychology special is not the skills themselves, which are often also relevant to other disciplines, nor is it specific items of knowledge, but it is the sheer number of skills and range of knowledge which makes psychology special.

The skills obtained by psychology students

Literacy
Psychology students are highly literate and are commonly trained to write in more than one type of literary format, such as essays, critical reviews, research reports and presentations.

Numeracy
Psychology students are also highly numerate. They are trained to interpret data summaries and to understand probability statements, and they become familiar with a wide range of statistical procedures and processes (Clark-Carter, 1994).

Computer Literacy
Psychology students are also computer literate, in that they are familiar with using computers, and can select and learn relevant packages for the tasks which they are required to carry out.

Information-finding skills
It is sometimes more useful to know where information can be found than to have memorised that information directly, particularly in areas which are developing and changing over time. Undertaking a course in psychology involves a considerable amount of information-finding skill that goes beyond the first page of a Google search.

Research skills
Psychology students are explicitly trained in research methods, and this training spans a range of different techniques. Typically, these will include experimental and observational methods, survey and sampling techniques, and more recently, qualitative analysis.

Measurement skills
Measurement skills go hand-in-hand with research skills, and psychology students are given the opportunity to develop these skills as well.

Environmental awareness
Knowing how someone's environment can influence their behaviour helps us to understand people at work, at home, in education, and at leisure. Psychology studies the factors that influence behaviour and experience.

Interpersonal awareness
Psychology students also learn about the mechanisms of social communication and the potential sources of interpersonal conflict. This is not the same as being socially skilled oneself, of course, although it can contribute to it.

Problem-solving skills
The ability to tackle a range of different types of problem is probably the most distinctive characteristic of the psychology student. They can operate on a macro-level, applying different perspectives or levels of analysis to the problem, or at a more basic level in terms of choosing appropriate methods and techniques.

Critical evaluation
Psychology students are also explicitly trained in critical evaluation. This set of cognitive skills can be viewed as a direct training in scepticism: students are expected to appraise whether what appears to be evidence for a phenomenon is really so; to evaluate, critically, the quality of an argument; to identify the shortcomings and pitfalls of a particular line of action; and to anticipate problems or difficulties.

Perspectives
On the surface, the ability to look at issues from several different points of view or to explore phenomena using different schools of thought appears to be a relatively esoteric one. However, it is a skill which can be surprisingly useful in many different contexts.

Higher-order analysis
This type of higher-order analysis involves being able to extract general principles rather than becoming bogged down with the details of the immediate situation.

Pragmatism
It does not take much exposure to psychological methodology for a psychology student to realise that they are never going to manage to achieve the perfect experiment, and that they will simply have to do the best they can with what is practical.

Conclusion
A psychology course, then, is actually rather special. Psychology integrates areas of knowledge which span the arts and the sciences, and in the process it provides students with a liberal education, as well as a particularly wide range of practical and professional skills.

Appendix 5: Indicative core for A-level Psychology.

Rationale and notes

The indicative content identifies the general themes and issues of psychology courses. This provides guidance for curriculum designers on the key aspects to include in a psychology programme aimed at pre-degree students.

The guidelines (Ofqual, 2011) for A-levels Psychology are embedded within the general science criteria. The assessment guidelines allow psychology curricula to opt out of some aspects of data collection: 'Due to the potential age of A-level learners and the possible nature of investigative activities in psychology, learners will not be expected to demonstrate the skills of investigation through internal assessment.' (Ofqual, 2011, p.8).

It is our view that the collection and analysis of data is an essential and integral part of any course in psychology and we have therefore included assessed practical work as an essential part of A-level Psychology. With regard to the limits of that practical work we argue that it is a realistic ambition to collect qualitative data at AS and A-level but the analysis of this data is beyond the scope of this level. On the other hand, it is appropriate both to collect and analyse quantitative data. This draft therefore requires quantitative analysis and not qualitative.

The most radical part of the draft is the specification of broad content areas in psychology. This is a departure from past drafts and specification guidelines but a necessary one if the A-level is going to align itself with higher education and GCSE, and also to give higher education institutions a clear view of what to expect from an A-level student. For each of the three key areas we have identified three general issues and given examples of how they might be illustrated.

Draft criteria

1. There are no prior knowledge requirements for A-level specifications in psychology.
2. A-level curricula must require students to develop knowledge and understanding from all of the following areas of psychology: cognitive, social and biological psychology and as part of that to explore the development of ideas and theories within the subject. There is a further requirement to develop knowledge and understanding of research methods in psychology.
   There is a minimum requirement to relate to the following:
   a) specialist vocabulary and terminology;
   b) psychological theories, concepts and studies; and
   c) the contribution of psychology to an understanding of individual, social and cultural diversity.
3. A-level curricula must require students to conduct data gathering and investigative activities.
4. Biological psychology explores the links between brain and behaviour including
   - localisation of brain function, illustrated, for example, by cortical language centres, the visual cortex, or lateralisation;
   - the role of neurochemicals, illustrated, for example, by the effects of drugs on behaviour, or the role of dopamine in mood; and

- the development of brain and behaviour, illustrated for example by brain plasticity, or the brain changes associated with adolescence.

5. Cognitive psychology explores how people sense, store, process and respond to the external world, including
   - sensation and perception, illustrated, for example, by the study of illusions or by eyetracking studies of reading;
   - storing and processing information, illustrated, for example, by working memory model, or models of thinking; and
   - development of cognition, illustrated, for example, by Piagetian studies or the development of language.
6. Social psychology explores how people respond to the world as members of relationships, groups and communities, including
   - the individual in the social world, illustrated, for example, by bystander studies or social influence;
   - behaviour in groups, illustrated, for example, by the development of ethnocentrism, or decision making in groups; and
   - early social relationships, illustrated, for example, by studies of attachment or development of emotions.
7. Research methods in psychology, involves the collection of data and the testing of ideas, including
   - data collection techniques for qualitative and quantitative data, including observations and self reports;
   - research design, including experimental design and association;
   - descriptive statistics, including measures of dispersion and central tendency, basic graphical presentations of results;
   - analysis of quantitative data, including an understanding of hypothesis testing and probability; and
   - experimental design: including controls.
8. A-level curricula must require students to develop an understanding of
   a) the applications and implications of psychology to cultural, social and contemporary issues;
   b) the scientific nature of psychology;
   c) the selection and application of knowledge and understanding of theories, concepts and approaches to the solution of problems;
   d) an appreciation of issues and debates in psychology; and
   e) the principles that inform the perspectives associated with the core areas in psychology (cognitive, social and biological psychology).

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INF209/04.2013