

The Student Skills Project

Executive Summary

The Access and Participation Plan (2020-25) includes a commitment to undertake a review of skills provision, in order to develop a new strategy for academic, employability and life skills, including targeted interventions designed to address identified progression gaps. The review is to be completed by October 2020, subject to approval by the General Board's Education Committee and the Senior Tutors' Committee during Michaelmas term. To support the skills strategy, over the lifetime of the APP, the Cambridge Centre for Teaching and Learning (CCTL) will develop support and encourage the integration of skills development into teaching and assessment practices, curricular and review processes; CCTL will also disseminate tools and resources through workshops, events and networks for Cambridge educators.

In October 2019, CCTL initiated a project, working with students, staff, academics and employers, to identify, develop and support the skills, capabilities and capacity of students to realise their potential in their studies and to learn throughout life. This work is undertaken in collaboration with the Careers Service and a number of providers of cross-Cambridge skills support, including the Disability Resource Centre, University Libraries, and the Colleges.

This report presents a working framework for a skills strategy which will encompass 'academic', 'life' and 'employability' skills and 'transition into, through and out of Cambridge'¹. The report also summarises work that will be undertaken between May and October to develop an action plan, with indicative costing and potential sources of funding, for 2020-25. Also included are summaries of the main actions taken over the course of the academic year 2019-2020, which include the following:

- convening a Skills Advisory Group, constituted with students and staff members and including academic and professional staff of the University and Colleges
- identifying the themes to explore in order to move toward drafting a skills strategy
- undertaking a review of literature and leading practice in a sample of higher education institutions
- scoping of the existing skills provision across the Collegiate University
- interviews with key figures in the development of skills provision
- on-going analysis of a student survey on skills provision conducted by the Cambridge University Student Union (CUSU)
- drafting of the premises and proposed actions of a skills strategy for 2020-2025
- consultation with the Skills Advisory Group on this draft of premises and actions

¹ These terms are as used in the Access and Participation Plan and in the Race Equality Charter. 'Transition into, through and out of Cambridge' might also be understood as encompassing 'academic', 'life' and 'employability' skills.

Working Draft: Premises and Actions of a Skills Strategy

The Skills Advisory Group convened on a termly basis between November and May. Details of the membership are appended, as is a summary of the aims and outcomes of each meeting. At its third meeting (13 May 2020), the Advisory Group considered draft Premises and Actions of a Skills Strategy; individual feedback was also elicited via an online survey.

At the time of writing in May 2020, the premises and potential actions were as follows:

I. The premises of the skills strategy

- a. That skills and knowledge are not considered as separate or distinct from each other.
- b. That Cambridge aims at achieving ever greater clarity, both for and with students and educators, on what we are educating students to be and to do.
- c. That all educators (supervisors, lecturers, college tutors, librarians, etc) are supported to understand and to carry out their roles in helping students develop skills.
- d. That students understand the importance and centrality of their own actions in shaping their education.
- e. That Cambridge commits to fostering among students an inclusive culture of constructive engagement toward their own educational and personal aims.
- f. That Cambridge acknowledges the existence of pedagogical and social obstacles to student achievement and continues to work for equality in and from collegiate university learning by engaging in reflective, critical self-assessment of whether and how some students have more opportunities to develop their skills than others.
- g. That Cambridge recognises the many different student learning journeys and aims to support those different journeys in order to disrupt social inequalities.
- h. That a central way to disrupt inequality is to ensure access to disciplinary knowledge thus curriculum will be a primary focus of the skills strategy.
- i. That students are able to make sense of how they will take forward their Cambridge education in their future lives.
- j. That Cambridge commits to regular review, reflection and renewal of a skills strategy.

II. What the skills strategy might do

a. Achieve ever greater clarity on what we are educating students to be and to do

- i. Develop a shared language around what we mean by skills

A key action of this strategy might be to develop a shared language and a shared conceptualisation of skills across Cambridge, one in which, importantly, skills and knowledge are not considered as separate or distinct from each other and in which skills and knowledge are understood to inform each other in an iterative way through the course of study. What we mean by skills in this sense might take shape as follows:

- Learning **the epistemology of a discipline**: the knowledge of how to operate in a discipline; how to think and appraise information in a given field; the ability to see

connections between ideas and concepts; to know what and how to read, how to locate information, structure an argument, write, approach and solve problems; the knowledge of disciplinary techniques/customs (e.g. referencing, languages, qualitative/quantitative methods, data processing skills etc); eventually, the ability to think or act independently and innovatively in a discipline.

- Acquiring **the skills of a learner** that all students will hopefully gain by nature of their study: self-knowledge, critical self-reflection, communication, collaboration, listening, self-direction and independence, flexibility, adaptability.
- Capacity for the **future application of both of these sets of skills**: students reflect on who they want to be and how they will take forward their Cambridge education.

ii. To link up the many existing efforts to support skills development

Skills provision exists in a multitude of ways across Cambridge. CCTL's interviews with key figures as well as our scoping endeavours capture the many efforts being made to support students in developing skills. But this probing as well as the CUSU student survey suggest that both students and educators would benefit from having these many existing efforts clearly linked up and signposted in order, from the student perspective, to improve accessibility to them and, from the educator perspective, to highlight the innovative initiatives out there for the purpose of sharing effective practices across the Cambridge community.

b. Work toward greater educational equality and toward removing barriers to achievement

Can all Cambridge students reasonably expect to develop the skills the Collegiate University expects them to gain from their time here? We know students come to Cambridge from different educational and social backgrounds. A central aim of the skills strategy will be to take a critical measure of access to learning opportunities, to learning attitudes and behaviours and to a sense of belonging.

c. To clarify the roles and responsibilities of both the individual learners and the educators in the development of student skills

A skills strategy might better articulate and clarify the role those teaching, especially undergraduate and postgraduate supervisors, play in not only developing the disciplinary knowledge, but also developing the individual student, that is, knowing how to guide students along on their learning journeys/trajectories. For students, the skills strategy might help them see the importance of what they do in shaping their education, not only in terms of the knowledge they gain but the attitudes and behaviours they cultivate as well. In a sense, the strategy would help students understand the importance of motivation and behaviours in the success of skills development.

d. To embed skills development clearly into the curriculum

In what ways is skill development currently embedded into the curriculum and teaching practices of different discipline? How could this be done more effectively?

e. To better prepare students for their lives beyond Cambridge

Another aim of the skills strategy is to help students more readily make sense of their academic and personal experiences at Cambridge and how they might take these

experiences and the skills they develop forward in their lives beyond Cambridge – that is, in realising purpose, finding meaningful employment, contributing to society, and engaging in civic life.

Next steps

The skills strategy will be refined over the summer months for presentation to the General Board's Education Committee (GBEC) and the Senior Tutors' Committee by the end of Michaelmas 2020, with an associated action plan to 2024-25; the action plan will include indicative costings and potential sources of funding.

Activities to be undertaken from May 2020, the time of writing, until October 2020 include the following:

1. Completion of analysis of the CUSU student survey
2. Solicit focussed input from the Colleges on their roles in the skills strategy
3. Further work in collaboration with Careers Service on developing the links to employability and students' lives beyond their studies at Cambridge including
 - a. Ways of developing student capacity to see their skills as floating abilities that can be redeployed in a variety of different contexts.
 - b. Devising constructive ways of helping students comprehend the acute value of their entire experience at Cambridge, in particular the large parts of their Cambridge experience that are not part of the curriculum but nevertheless have economic value
 - c. Identifying and engaging Widening Participation students who are frequently disadvantaged in the labour market
4. Presentation of current draft of skills strategy to the Graduate Tutors' Committee and consultation with its members, 18 June 2020
5. Presentation of current draft of skills strategy to the Senior Tutors' Committee and consultation with its members, 26 June 2020
6. Expansion of CCTL's work with students to co-produce elements of the skills strategy
7. Bridging with CCTL's Inclusive Teaching and Learning Project
8. Beginning the development of tools and resources related to skills development and the organising of events and networks for Cambridge educators

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May 2020

Appendix 1: membership, aims and outcomes of meetings of the Skills Advisory Group

In October 2019, CCTL formed an advisory group composed of staff and students from across the Collegiate University. The Advisory Group reports to the General Board of Education Committee (through the Centre for Teaching and Learning Steering Group) and the Senior Tutors' Committee (via the Senior Tutors' Education Committee).

Chair	Dr Susan Larsen (Wolfson)
Cambridge Centre for Teaching and Learning	Dr Mary Beth Benbenek (CCTL, Senior Teaching Associate) Dr Steve Joy (CCTL, Head of Researcher Development) Dr Meg Tait (Head of CCTL)
Colleges	Dr Clare Jackson (Trinity Hall) Dr Annette Mahon (Lucy Cavendish)
Departments/Faculties	Dr Alexandre Kabla (Engineering) Dr Maria Iacovou (Sociology)
Student representatives - Depts/Faculties, Colleges	Emily Hall (undergraduate, History, Robinson) Thomas Hasson (undergraduate, St John's) Kathleen Schwind (MPhil in International Relations and Politics, Lucy Cavendish) Daniel Trickov (undergraduate, HSPS) Kyanna Ouyang (undergraduate, St John's)
Students' Union	Ali Hyde (CUSU Education Officer) Alessandro Ceccarelli (GU representatives President)
Professional services	Libby Tilley (University Libraries) Emily Packer (Careers Service) Jessica Comber-Chaney (University Information Services) Helen Duncan (Disability Resource Centre)
Right of attendance	Dr Corinne Boz (Institute of Continuing Education) Melissa Reilly (Educational Quality & Policy Office) Juliet Scott-Barrett (CCTL)

The terms of reference for the Advisory Group are as follows:

The Advisory Group guides project work undertaken by CCTL staff to

- a. identify current provision for undergraduates and postgraduates across the Collegiate University
- b. review relevant academic literature and examples of sector-leading approaches

- c. analyse the perceptions of students, internal stakeholders, employers and alumni concerning priorities

In doing so, the Advisory Group will

- a. consider opportunities for more co-ordinated pathways, where appropriate
- b. identify priorities for further research about skills development, including its intersection with inclusivity, welfare and learning gains, in order to develop an evidence-base and to evaluate the impact of current and future initiatives at Cambridge

To date, the advisory group has convened on three occasions: 22 November 2019; 26 February 2020; and 13 May 2020. During its first meeting (22 November 2019), the Advisory Group reflected on what currently works well in Cambridge, some priorities for improvement, and broad objectives for project work during the academic year. Four broad themes were identified during discussions:

- a. Situation: signposting, communication, timing and context

In addition to mapping and signposting the existing opportunities to develop skills and capabilities, can we develop a shared language, one that avoids the language of deficit models, that enables us to recognise the skills and capabilities students develop incrementally and iteratively throughout their study?

- b. Equal opportunities and accessibility

The Collegiate University's devolved structure leads to duplication, lack of ownership and lack of equity both in terms of opportunities and of awareness. Could better communication and a shared language about skills or capabilities raise awareness and reduce inequities? Might this also lead to more clarity about the purpose and aims of teaching at Cambridge?

- c. Learning journeys and sustainability

For a shared language on skills and capabilities to be sustainable, there needs to be both an academic and financial commitment to student- and staff-informed strategy that is self-critical of the way we think about and develop skills. The strategy should enable students to reflect on 'who they want to be' at the end of their learning journey.

- d. Reconceptualization of 'skills' and integration into academic practice

We need to understand more clearly what we want to train students to do: do we want to train them to know something or do we want to train them to know how to learn something? Can we do both, and encourage a sense of humility and criticality about knowledge into the learning process? Also, can we find a conceptualisation that enables students to take ownership over their own skills development and develop communication channels that enable them to convey their ideas about facilitating and supporting skills development?

The Advisory Group met for a second time on 26 February 2020 with a view to making progress towards identifying a set of guiding principles for a skills strategy, encompassing 'academic', 'life' and 'employability' skills and 'transition into, through and out of Cambridge'.

By May, CCTL had drafted the premises and potential actions of a skills strategy ahead of the final meeting of the Advisory Group on 13 May and invited feedback on the premises and proposed actions as well as on the clarity and choice of the language used.

Appendix 2: Analyses conducted

Following the first Advisory Group meeting, CCTL commenced two analyses: one, a literature review on skills with a focus on 'capabilities approach'; two, a scoping effort of the skills provision currently on offer across the Collegiate University.

Literature review

At this initial meeting of the Advisory Group, a number of members suggested that 'capabilities approach' might provide a useful conceptual model for the skills strategy. The CCTL team commenced a review of the academic literature on capabilities approach in general and more specifically on works linking capabilities approach to higher education; the review is appended. As this review suggests, capabilities approach is particularly helpful in conceptualising student skills as it focusses on the importance of equality of capability for all students and on not perpetuating advantage for students whose backgrounds and 'cultural capital' (broadly: the education, knowledge and skills that provide advantage in achieving a higher status in society) are regarded as 'traditional'. As Melanie Walkers explains, 'Working for equality in and from university learning involves fostering student capabilities to function'. The practical question that follows is how universities address pedagogical and social obstacles to student achievement and develop student capability. This, in turn, means attending to questions such as: are valued capabilities distributed fairly in and through university education? Do some people get more opportunities to convert their resources into capabilities than others? Which capabilities matter most for developing agency?' (Walker, 2009, pp. 898-99).

A capabilities approach focusses on opportunities, rather than outcomes or products. According to Amartya Sen², who first developed capabilities approach, capabilities represent 'the alternative combination of functionings that are feasible for [a person] to achieve well-being'; they are the 'substantive freedom' a person has to 'lead the kind of life he or she has reason to value' (Sen, 1999, p. 87). Sen notes that capabilities are individual advantages and that there is further need to attend to the fairnesses of processes in forming capabilities (Sen, 1999, in Boni and Walker, 2013, p. 3). It is precisely this concern with the fairness of processes in forming capabilities that a Cambridge skills strategy will aim to address with the view of working toward equal capabilities.

Scoping skills provision

² Amartya Sen is an economist and philosopher. He was awarded the Nobel Memorial Prize in Economic Sciences in 1998 and was Master of Trinity College, Cambridge, between 1998 and 2004.

During 2019-20, CCTL is conducting a scoping project to identify current student-facing skills activity at Cambridge. Further work includes analysis of sector-leading practices and focus groups with staff, students, as well as (via Careers) engagement with employers. To date, the following scoping efforts have been undertaken:

- a. Faculties and departments – a systematic exploration of the skills support on offer (online resources, workshops, one-to-one support)
- b. Colleges – an exploration of the types of skills support on offer
- c. Survey of undergraduates and postgraduates -- Cambridge University Student Union (CUSU) conducted a student survey on work load and study skills in February 2020
 - i. Survey questions probe issues of access to support, of preparedness for study; of whether students engage support offered by Colleges, faculties, or libraries; and whether they make use of already existing University-wide resources, such as CamGuides or Transkills.

CCTL is also interviewing key providers of skills provision and/or the developers of college- or department-specific skills support programmes:

Libby Tilley	Education Liaison Lead Libraries/CamGuides
Meg Westbury	Wolfson College WolfWorks
Lily-Rose Sharry	CUSU Access and Funding Officer
Dr Ella McPherson	Director of Undergraduate Education, Sociology
Melissa Reilly	EQPO, Transkills maintainer
Emily Packer	Careers Service
Dr Alison Wood	Academic Director, Homerton Changemakers
Helen Duncan	Senior Neurodiversity Advisor, Disability Resource Centre
Dr Lisa Jardine-Wright	Physics, Director of STEMstart for Natural Sciences Tripos
Dr Karen Ottewell	Director of Academic Development & Training for International Students (ADTIS), Language Centre
Dr Matthew Sparkes	Social Sciences Research Methods Programme
Gateway Programme	Murray Edwards College
Dr Lizzie Collingham	Writing Fellow, Department of Earth Sciences
Department of Engineering	Study skills sessions for undergraduates organisers

*Those highlighted in grey have yet to be interviewed.

From the scoping of provision and the interviews, certain key themes on the undergraduate student-facing skills support have emerged (further analysis will be undertaken):

- a. Unevenness of provision – there is no consistent standard in skills support. Some departments or colleges offer extensive resources or programmes, while others offer very little or nothing.
- b. The current focus is largely on skills needed to transition from school to university – the largest effort is in helping undergraduates acclimate to a different, more complex learning environment.
- c. Sentiment that both staff and students need to better identify the skills students gain while studying here; and the skills they will apply for the next stage, for moving on from their studies.
- d. The issue of students lacking confidence came up repeatedly, and many interviewees tied it to a sense of belonging at Cambridge, and some called for the need for greater transparency, ‘an institutional opening’.

The Cambridge University Student Union Workload and Skills Survey

In February 2020, the Cambridge University Student Union (CUSU) sent out a survey to undergraduates and postgraduates on workload and student skills and received close to 700 responses. Though the survey has not yet been fully analysed and the full data was only shared with CCTL in early May, certain themes are evident from a preliminary reading of some of the qualitative data:

- a. Preparedness for study based on students’ schools:

‘I would really love to have an (optional) class on how to write history and anthropology essays - I get the impression that I had a lot less help at school for how to write an elegant and clear essay, compared to other more privileged schools’

‘I think they could focus on skills that might not come easily to students from a state-schooled or first [generation] background. My parents didn't go to university, no one in my family is involved in academia, so I had no idea how to read and take notes efficiently. Often at Cambridge it's assumed that we understand certain terms, or we are able to comprehend high-level texts. But that's not the case for everyone’

‘Make [skills support] more accessible to people from a non-Oxbridge/private school background’

‘Official admissions material insists that everything will be taught from scratch but this is not true. Many students come in with an advantage due to different educational backgrounds and the other students have a very tough time catching up due to the very intense workload even at the start of first year.’

- b. Feelings of inadequacy if students ask for help:

'Work to remove taboo around asking for extra help in form of study skills'

- c. The need to focus on teaching of skills:

'Making students do things that require skills they don't have does *not* count as teaching the skills. All it does is give an advantage to people who happened to already have the skills, and entrench the beliefs of people who don't have the skills that they aren't good enough and won't succeed at Cambridge.'

'I don't feel I was behind, but there is an expectation that you should be able to understand everything, and if you don't, then it's made to feel like it's your fault for not working hard enough.'

- d. Students in colleges with extensive programmes feel supported:

'I think college does better than average in this respect through the Gateway Programme'

According to Ali Hyde, the CUSU Education Officer, who has completed a preliminary reading of the full survey data, 'The study skills section of the survey shows that students do feel that their skills are being developed through the feedback they receive in supervisions, but the respondents also suggested various improvements to skills provision in colleges, faculties, libraries, and overall. Barriers to skills provision were noted as including the perceived impetus on students to find out what provision exists for themselves, often too late to be of use'.

Further analysis of the CUSU survey will provide greater insight into the student experience and, potentially, the possibility of learning from the students regarding what they consider the most effective ways of supporting the development of their skills, as the survey asked students to share their own ideas for improving skills provision.

Appendix 3: The 'capability approach' and higher education: an introduction

First developed by Amartya Sen³, the 'capability approach' is generally understood as a flexible, multi-purpose framework about wellbeing, development and justice. Working initially in development economics, Sen proposed that human development goals be conceptualised in a way that foregrounds human agency, rather than markets or organisations. 'Capabilities' are defined as the freedoms to achieve sets of 'functionings', that is the 'beings' and 'doings' that a person values and has reason to value. Capabilities represent 'the alternative combination of functionings that are feasible for [a person] to achieve well-being'; they are the 'substantive freedom' a person has to 'lead the kind of life he or she has reason to value' (Sen, 1999, p. 87). A capabilities approach focusses on opportunities, rather than outcomes or products. Considering social inequalities generated by diversity, for example, 'equality' is not taken to mean 'equal income' but 'equal capabilities'; Sen notes that capabilities are individual advantages and that there is further need to attend to the fairnesses of processes in forming capabilities (Sen, 1999, in Boni and Walker, 2013, p. 3).

Martha Nussbaum and others have drawn on the capabilities approach to articulate accounts of the nature and purpose of higher education. Nussbaum describes the purpose of higher education as the 'cultivation of the whole human being for the functions of citizenship and life generally' (Nussbaum, 1997, p. 9). Melanie Walker further develops this theme: 'working for equality in and from university learning involves fostering student 'capabilities to function'. Walker emphasises the importance of equality of capability for all students, in order not to perpetuate advantage for students whose backgrounds and 'cultural capital' (broadly: the education, knowledge and skills that provide advantage in achieving a higher status in society) are regarded as 'traditional'. The practical question that follows is how universities address pedagogical obstacles to student achievement and develop student capability. This, in turn, means attending to questions such as: are valued capabilities distributed fairly in and through university education? Do some people get more opportunities to convert their resources into capabilities than others? Which capabilities matter most for developing agency?' (Walker, 2009, pp. 898-99).

In terms of disciplinary teaching, Wally Morrow emphasises how disciplines both grant students special ways of thinking and also position them to participate in communities of enquiry. For Morrow, studying in higher education should enable students to learn 'to understand and come to care about ... the telos and fundamental rules and principles' of a discipline, because possessing such discipline-specific knowledge gives them the power to innovate and act freely or independently (Morrow, 2009, p. 121). In this sense, discipline-specific capabilities have the potential to grant students access to what philosopher Miranda Fricker call 'the credibility economy' where 'people are consulted, heard, accorded credibility as informants, their status as epistemic agents is acknowledged and preserved' (Fricker, 2007, p. 30).

³ Amartya Sen is an economist and philosopher. He was awarded the Nobel Memorial Prize in Economic Sciences in 1998 and was Master of Trinity College, Cambridge, between 1998 and 2004.

Capabilities scholars differ over whether or not to define specific capabilities. For some, a capabilities approach is specifically not intended to yield a list of 'skills' or 'attributes'; others have proposed their own. Sen, for example, maintains that dialogue and public debate are needed in order to identify and legitimise capabilities that represent priorities for particular situations; Nussbaum, by contrast, argues that there is a strong philosophical basis for elaborating a proposal of core capabilities and that a list may serve as a reference for design and evaluation (Boni and Walker, 2013). Boni and Walker advocate a focus on curriculum, rather than the 'more usual higher education focus on teaching and learning, where so much rests on the individual lecturers' (Boni and Walker, p. 26). Walker envisages that

curriculum and knowledge selection principles would be determined contextually, subject by subject, but could include general ideas and approaches such as interdisciplinarity [and] ethics as well as real problems and issues of the local context [...]. Indicative capabilities to be created through curriculum might include: practical reasoning [the use of reason to decide how to act], [...] critical thinking and reasoned analysis, respect, imagination and empathy, cosmopolitan citizenship and ethical awareness. These opportunities would be made available through appropriate pedagogical arrangements to foster participation, reflexivity, interculturality and so forth, and with functioning outcomes such as acting as a critical agent in one's own life, having multiple perspectives on the world, being open minded, decent, humble and curious and tolerant towards others, and able to lead a dignified life with a fair chance of choosing among preferred alternatives (Walker, 2012, in Boni and Walker, p. 26).

What is a 'good' university education?

Andrea Abbas, Paul Ashwin and Monica McLean conducted a four-year ESRC-funded investigation into undergraduate education, via four case study UK universities (which they anonymised as 'Community', 'Diversity', 'Prestige' and 'Selective'); their research was intended to inform contemporary debates and policy development concerning 'quality' and 'teaching' in higher education. For Abbas et al, questions of quality are bound up with questions of purpose, and in one of the many publications arising from this study, they review different accounts of what higher education is 'for'. The Enlightenment tradition, for example, is conventionally understood to serve four functions:

the production of technical knowledge to serve the economy and citizens' welfare; the academic preparation of professionals; the transmission, interpretation and production of cultural knowledge embodied in the disciplines; and a critical function [...] the 'enlightenment of the public sphere' (McLean et al, 2018, p. 5).

As a counterpoint to this account, they note that critical scholars and commentators 'have long argued that universities' knowledge production is biased towards the interests of a white, male, able-bodied, middle-class elite' (p. 5) and that current policy discourse foregrounds 'improving national wealth and individual prosperity' (p. 5). Arguing that 'knowledge is the main currency of universities', Abbas et al advocate for a conception of educational quality that 'resides in access to disciplinary knowledge'. Furthermore, 'this access, known as epistemological access, disrupts inequality' (p. 6). Their study included review of policy and curriculum documents, surveys and interviews with students, reviews of assessed work and video recordings of seminar teaching and interviews with seminar teachers.

Reflecting on their interviews with students, they concluded:

students' engagement with academic knowledge involve a transformation of the way in which students see the relations between themselves, the world and the disciplinary knowledge that they are studying. Such transformations would appear to be a planned element of higher education, in which an undergraduate education is a necessary element. However, our outcomes also suggest that students' engagement with knowledge is not a sufficient condition for this transformation and these also need an alignment between students' personal projects [students' views of the value and usefulness of what they are studying] and the focus of disciplinary knowledge (Ashwin et al, 2014, p. 231).

Researching 'Oxbridge' education: implications for teaching and learning

During the mid-2000s, Paul Ashwin researched the perceptions of academics and students in Oxford of the purpose of tutorial teaching, interviewing 20 academics and 28 students across a range of disciplines. He identified four qualitatively different ways in which academics and students described the purposes of tutorials:

Tutors' perceptions	Students' perceptions
tutorials as a place where tutors help students to develop an understanding of concepts	tutorials as the tutor explaining to the student what the student does not understand
tutorials as a place where students see how to approach their discipline	tutorials as the tutor showing the student how to see the subject in the way that the tutor does
tutorials as a place where evidence is critically discussed	tutorials as the tutor bringing things into relation to each other to help the student develop a new perspective in the wider context of the discipline
tutorials as a place where new positions on the topic are developed and refined	tutorials as the tutor and the student exchanging different points of view on the topic and both coming to a new understanding

Ashwin presents the findings of these studies as exploratory, though he notes that a larger-scale, quantitative study of Oxford's educational environment indicated similar student perceptions. Referring to further studies in Oxford, he suggests that

students' conceptions of tutorials, that is their understanding of the academic task undertaken as part of the tutorial system, is related to their successful engagement in that system. This presents the possibility that, if students can be helped to develop a more sophisticated understanding of the role of tutorials, or academic tasks more

generally, in their learning, then the quality of their learning can be improved (Ashwin, 2005, p. 642).

The UK Higher Education Qualifications Framework

Within the UK, there are two parallel frameworks for higher education qualifications of UK degree-awarding bodies, one of which applies to Scotland and one of which applies to the rest of the UK. The premise of these frameworks is that qualifications are awarded on the basis of demonstrated achievement of outcomes (rather than years of study, for example). The table overleaf includes the outcomes which students may be expected to achieve at the end of what in Cambridge constitute their first, second and final years of undergraduate study (levels 4-6).

The framework indicates outcomes both in terms of what students completing study at each level should be able to demonstrate that they 'know' and what they might be expected to 'do'.

The Framework also includes outcomes for Master's-level and doctoral study. For reasons of space, these are not included in this document. They may, however, be accessed via the link under references.

1 st year undergraduate (Level 4)	2 nd year undergraduate (Level 5)	Final-year undergraduate (Level 6)
... by the end of the period of study, will be able to demonstrate	... by the end of the period of study, will be able to demonstrate	... by the end of the period of study, will be able to demonstrate
knowledge of the underlying concepts and principles associated with their area(s) of study, and an ability to evaluate and interpret these within the context of that area of study	knowledge and critical understanding of the well-established principles of their area(s) of study, and of the way in which those principles have developed	a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline
an ability to present, evaluate and interpret qualitative and quantitative data, in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of their subject(s) of study.	ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context	an ability to deploy accurately established techniques of analysis and enquiry within a discipline
	knowledge of the main methods of enquiry in the subject(s) relevant to the named award, and ability to evaluate critically the appropriateness of different approaches to solving problems in the field of study	conceptual understanding that enables the student: - to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline - to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline
	an understanding of the limits of their knowledge, and how this influences analyses and interpretations based on that knowledge	an appreciation of the uncertainty, ambiguity and limits of knowledge
		the ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline)
... will be able to	... will be able to	... will be able to
evaluate the appropriateness of different approaches to solving problems related to their area(s) of study and/or work	use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis	apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects
communicate the results of their study/work accurately and reliably, and with structured and coherent arguments	effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences and deploy key techniques of the discipline effectively	critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem
undertake further training and develop new skills within a structured and managed environment	undertake further training, develop existing skills and acquire new competences that will enable them to assume significant responsibility within organisations	communicate information, ideas, problems and solutions to both specialist and non-specialist audiences

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