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Desirable employability skills: a literature review of what the skills mean

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Abstract

In this report we summarise what the literature says employers are looking for from university graduates in terms of technical and soft skills of competencies.

Keywords

Skills, employability, economics, social sciences, graduate employment

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Section 1: Introduction

In summer 2019 I undertook research for the Economics Network project on [Embedding Employability Skills in Economics Degrees](). Part of this research involved reviewing existing literature on employability skills, in general and from an economics-specific context, to complement the Economics Network Employer Surveys. In Spring/Summer 2020 I updated the literature review and in particular focused in more detail on how particular skills or competencies were defined. I have summarised the research in tabular format here, on a skill by skill basis.

This more detailed information, about the language that the literature uses in relation to each skill area, should help students better understand the angles that they should be considering when developing their skills. It will also help students think about how best to match what they have to offer to what employers want. It should also help with a potential problem identified in the Economics Network Employability project of employers and academics talking about skills at different ways. Academics who keen to develop more work-related skills in their programmes or modules may be able to better-target activities and assessment with a deeper understanding of what the skills mean from an employer perspective.

Section 2: Overview of key skills identified in literature

My literature review revealed a significant amount of overlap in what skills were identified as important across sectors and countries. The list below summarises the skills that were emphasised most often across the literature as being important to employers. There was no clear order of priority of these skills coming out strongly from literature, except communication and working with others being at the top.

1. Communicate in writing, orally and visually for academic and non-academic audiences
2. Work in teams, within discipline and with others outside discipline
3. Plan and design research
4. Solve real world problems
5. Analyze data (or wider evidence)
6. Digital literacy
7. Self-management
8. Ability and willingness to learn
9. Can do/positive attitude
10. Critical self-awareness
11. Creativity
12. Professionalism
13. Resilience
14. Leadership
15. Manage own career
16. Commercial and customer awareness

In the rest of the report I share, in tabular form, what the literature says are the most important dimensions of each skill area.

2.1 Communication and content production

What does it mean?	Source
Express and explain evidence-based ideas Higher-level/professional communication Style/tone/format/language appropriate to context/audience Logical and structured argument Relevant and concise arguments Clear/coherent Apply to formal (reports/presentations) and informal (emails/phone/chat in lift) Summarize arguments of others Accurate representation Appropriate referencing Able to produce oral, visual and written outputs, recognizing what best to use when Emails Minutes Press releases Reports Illustrations Presentations Debate Elevator pitch Blogs Podcasts Infographics Videos Photography Objects Understand challenges of cognitive overload Able to communicate technical analysis to non-technical audiences Plain English Coherent summary Explain the intuition Pithy Simplification Use different modes of presentation	Andrews and Higson (2008); Archer and Davison (2008); Association of Graduate Recruiters (2016); Borner et al (2018); British Academy (2017); Campaign for Social Science (2018); Coyle (2012); Dearing Report (1997); Dench et al (1998); Economics Network Employer Surveys (2007, 2012, 2015, 2019); Fallows and Steven (2000); Lowden et al (2011); Lynette et al (2017); McCowan (2015); Pegg et al (2012, citing CBI); O'Doherty et al (2007); Pereira et al (2019); QAA Anthropology (2019); QAA Archaeology (2014); QAA Economics (2019); QAA History (2019); QAA History of Art (2019); QAA Politics (2019); Rethinking Economics (2018); Rhew et al (2019); Subbu and Rajasekaran (2018); Suleman (2016); Universities UK (2018); Universities UK International (2020)

2.2 Working effectively with others

What does it mean?	Source
Team working/collaboration One-to-one or bigger groups Inter-personal skills Sociability Listening Body language Questioning/debate Empathy and insight Respect other people's values, views, and opinions Work towards common goals Constructive discussion Blend across disciplines Awareness of cross-cultural issues Understand 'other ways of being in the world' Learn from others Evaluate different viewpoints Open to giving and receiving feedback Amend views in response to new argument/evidence Teach others Management/leadership communication Take on different roles/flexible in roles Understand how to influence human behaviour Diplomacy and negotiation Good facilitation skills Influencing Persuasion Reverse mentoring/upward management Relationship building	Andrew and Higson (2008); Archer and Davison (2008); Borner et al (2018); British Academy (2017); Campaign for Social Science (2018); Dench et al (1998); Economics Network Employer Surveys (2007, 2012, 2015, 2019); Fallows and Steven (2000); Hewitt (2020); Lowden et al (2011); Lynette et al (2017); Pereira et al (2019); O'Doherty et al (2007); QAA Anthropology (2019); QAA Archaeology (2014); QAA Economics (2019); QAA Geography (2019); QAA History (2019); QAA History of Art (2019); QAA Politics (2019); Rhew et al (2019); Romgens et al (2019); Subbu and Rajasekaran (2018); Suleman (2016); Universities UK (2018)

2.3 Plan and design research

What does it mean?	Source
Project management Formulate and ask appropriate questions Use different methodological approaches to test claims/ answer questions Apply existing knowledge Provide framework for evaluating and assessing Structured enquiry Consider options for analysis and relative merits of different approaches/theories/explanations Analysis, deduction and induction Identify, select and interrogate range of appropriate evidence/materials from existing sources (textual/numerical/visual) Primary and secondary data Application of numeracy in practical contexts Able to identify and assess evidence base Able to appropriately use and reference the work of others Consider range of perspectives/viewpoints Consider unfamiliar ideas/ways of thinking Read carefully Sensitivity in interpretation of texts Critically evaluate and reflect on work of others Bibliographic skills	Andrews and Higson (2008); Archer and Davison (2008); Association of Graduate Recruiters (2016); British Academy (2017); Campaign for Social Science (2018); Coyle (2012); Dearing Report (1997); Dench et al (1998); Economics Network Employer Surveys (2007, 2012, 2015, 2019); Fallows and Steven (2000); Hewitt (2020); Lowden et al (2011); Lynette et al (2017); McCowan (2015); O'Doherty et al (2007); Pegg et al (2012, citing CBI); Pereira et al (2019); QAA Anthropology (2019); QAA Archaeology (2014); QAA Economics (2019); QAA Geography (2019); QAA History (2019); QAA History of Art (2019); QAA Politics (2019); Rethinking Economics (2018); Rhew et al (2019); Universities UK (2018); Universities UK International (2020)

2.4 Ability to consider and solve problems

What does it mean?	Source
Understand real world problems/issues Familiar with and able to engage with big current agendas (eg, climate change, globalization) Understand current and historical context of issues Knowledge of society/cultures Synoptic skills Reach a conclusion/make a decision Able to see bigger picture Establish criteria, based on principles and reasoning, and evaluate evidence against them Develop independent argument Able to simplify without losing relevance Decide what should be taken as given when setting up and solving a problem (framing) Recognise there may be no one right answer Independent thought Critical thinking Creative thinking Explain and persuade Take responsibility for decision/conclusion reached Determine ability to implement solutions Proportionality Reasoned arguments Persuasive arguments	Andrews and Higson (2008); Archer and Davison (2008); Association of Graduate Recruiters (2016); British Academy (2017); Campaign for Social Science (2018); Coyle (2012); Dearing Report (1997); Dench et al (1998) ; Economics Network Employer Surveys (2007, 2012, 2015, 2019); Fallows and Steven (2000); Hewitt (2020); Lowden et al (2011); Lynette et al (2017); McCowan (2015); O'Doherty et al (2007); Pegg et al (2012, citing CBI); Pereira et al (2019); QAA Anthropology (2019); QAA Archaeology (2014); QAA Economics (2019); QAA Geography (2019); QAA History (2019); QAA History of Art (2019); QAA Politics (2019); Rethinking Economics (2018); Rhew et al (2019); Subbu and Rajasekaran (2018) ; Suleman (2016); Universities UK (2018); Universities UK International (2020)

2.5 Analysis of (data) evidence

What does it mean?	Source
Finding/organizing/analyzing/interpreting/-explaining Qualitative analysis and data processing skills Interpret and use data effectively to analyse and solve challenges Identify and collect relevant primary and secondary data (quantitative and qualitative) Understand sources Data gathering/retrieval (secondary) Data generation/creation (primary) Big data Record/Track data Information retrieval skills Use mix of evidence Record-keeping and archiving Work confidently with data Numeracy skills: able to interpret and manipulate numbers Organise data Cleaning data Assess reliability of data Able to mix data sources Able to use partial or ambiguous data Able to identify gaps Accuracy Analyse data Ask critical questions of data Interrogate evidence Use variety of interpretative/analytical methods Identify errors and know how to remedy Statistical and computing skills, including programming/coding Work ethically with data Understand intellectual property, copyright and data protection Willingness to try things out and learn new approaches Understand how not to be misled by numbers or selective use of data Presenting the story in the data analysis [link to Communication and Digital Literacy] Evaluate findings to reach conclusion, considering context, different perspectives and complexity Recognise where conclusions from data are ambiguous/data is incomplete Describe data visually (eg, maps, diagrams, charts) Synthesize evidence Informative messaging Explain significance of findings and caveats Interpret empirical work of others	Anand and Leape (2012); British Academy (2017); Campaign for Social Science (2018); Coyle (2012); Fallows and Steven (2000); Lynette et al (2017); O'Doherty et al (2007); QAA Anthropology (2019); QAA Economics (2019); QAA Geography (2019); QAA Archaeology (2014); QAA History (2019); QAA Politics (2019); Subbu and Rajasekaran (2018) [Note: Borner et al (2018) and Lynette et al (2017) emphasise that as data analysis becomes more common and more complex, communication skills become even more important. Not enough to have technical skills – need to be able to tell a story with data/persuade others]

2.6 Digital Literacy

What does it mean?	Source
Information technology fluency/confidence Computer literacy Able to apply IT solutions Know what technology to use when Mainstream office proficiency (routine tasks) Data/information/archive digital skills Databases Digitized resources Statistical software Programming languages Coding Communication digital skills web design social media podcasts filmmaking Recording and broadcasting Data visualisation Technology linked to content production Open to learning new/emerging technologies Able to adapt to technology changes	British Academy (2017); Coyle (2012); Dearing Report (1997); Dench et al (1998); Economics Network alumni survey (2008); Lynette et al (2017); Pegg et al (2012, citing CBI); Pereira et al (2019); QAA Archaeology (2014); QAA Geography (2019); QAA History (2019); QAA History of Art (2019); QAA Politics (2019); Rhew et al (2019); Subbu and Rajasekaran (2018) ; Suleman (2016); Universities UK International (2020) [Lynette et al (2017) note that employers are not as focused on these skills as students]

2.7 Self-management

What does it mean?	Source
Able to work with minimum supervision Define own brief Work independently Work autonomously Self-motivating Organised Able to plan work Juggle priorities Time management Self-discipline Self-direction Self-reliant	Andrews and Higson (2008); British Academy (2017); Campaign for Social Science (2018); Fallows and Steven (2000); Hewitt (2020); Lynette et al (2017) ; QAA Anthropology (2019); QAA Archaeology (2014); QAA Geography (2019); QAA History (2019); QAA History of Art (2019); QAA Politics (2019); Rhew et al (2019); Romgens et al (2019); Subbu and Rajasekaran (2018); Suleman (2016)

2.8 Ability and willingness to learn

What does it mean?	Source
Adaptability Willing to re-train (eg in world of AI) Able to assess own strengths and weaknesses Able to set goals and targets Take on new ways of working Able to track own progress towards goals/targets Ask for support when needed Skills to engage in lifelong learning Open-minded Commitment to lifelong learning	Andrews and Higson (2008); British Academy (2017); Dearing Report (1997); Lynette et al (2017) ; Dench et al (1998); QAA Anthropology (2019); QAA Geography (2019); QAA History of Art (2019); QAA Politics (2019); Rhew et al (2019); Romgens et al (2019); Subbu and Rajasekaran (2018); Universities UK (2018)

2.9 Can do/positive attitude

What does it mean?	Source
Take initiative Flexible/adaptable Personal drive Openness Trying new things Willingness to experiment Persistent Independent thinking Motivated Proactive Receptive to new ideas Anticipate and accommodate change Take personal responsibility Positive attitude	British Academy (2017); Campaign for Social Science (2018); Fallows and Steven (2000); Lynette et al (2017); Pegg et al (2012, citing CBI); QAA Archaeology (2014); Rethinking Economics (2018); Rhew et al (2019); Romgens et al (2019); Subbu and Rajasekaran (2018); Universities UK (2018)

2.10 Critical self-awareness

What does it mean?	Source
Self-reflection Self-confidence Self-esteem Emotional intelligence Positive identity Able to critically evaluate own thinking Able to motivate self	Andrews and Higson (2008); Association of Graduate Recruiters (2016); Lynette et al (2017); Pegg et al (2012); QAA Archaeology (2014); QAA Geography (2019); QAA Politics (2019); Romgens et al (2019); Tomlinson (2012); Universities UK (2018); Universities UK International (2020)

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2.11 Creativity

What does it mean?	Source
Originality Think creatively Intellectual curiosity/inquiring mind Entrepreneurship Innovative thinking New ideas Risk taking Imaginative insight Intrapeneurial	Andrews and Higson (2008); British Academy (2017); Campaign for Social Science (2018); Economics Network alumni survey (2008); Lynette et al (2017); Pegg et al (2012, citing CBI); Pereira et al (2019); QAA Archaeology (2014); QAA Geography (2019); QAA History (2019); Rethinking Economics (2018); Suleman (2016); Universities UK International (2020)

2.12 Professionalism

What does it mean?	Source
Being objective Integrity Diligent Maturity Reliable Using discretion Moral and ethical awareness Social/cultural skills Sensitive to different cultures Meet deadlines Understand workplace etiquette Understand business culture Understand health and safety at work Know how to act in an office/place of work	Andrews and Higson (2008); Archer and Davison (2008); British Academy (2017); Dench et al (1998); Lynette et al (2017); O'Doherty et al (2007); Pereira et al (2019); QAA Archaeology (2014); QAA Geography (2019); QAA History (2019); QAA History of Art (2019); Suleman (2016); Universities UK International (2020); Webb and Chafer (2016)

2.13 Resilience

What does it mean?	Source
Ability to cope with uncertainty Able to cope with pressure Flexible Ability to transition Ability to respond constructively to feedback	Andrews and Higson (2008); Suleman (2016); Universities UK (2018); Universities UK International (2020); Webb and Chafer (2016)

2.14 Leadership

What does it mean?	Source
Ability to make decisions Ability to plan and think strategically Take responsibility Able to influence and persuade People management Challenge 'ethnocentric' assumptions Able to motivate others	Andrews and Higson (2008); Archer and Davison (2008); Association of Graduate Recruiters (2016); Campaign for Social Science (2018); Lowden et al (2011); Lynette et al (2017); QAA Anthropology (2019); Rhew et al (2019); Subbu and Rajasekaran (2018); Universities UK (2018)

2.15 Able to manage own career

What does it mean?	Source
Understand what suitable work opportunities are Understand recruitment and selection processes Job searching skills CV/application writing skills Interview skills Knowing how to sell skills to employers Career self-management Visas Take responsibility for their careers	Fallows and Steven (2000); Lynette et al (2017); Romgens et al (2019); Subbu and Rajasekaran (2018); Universities UK (2018); Universities UK International (2020)

2.16 Commercial and customer awareness

What does it mean?	Source
Understand sectors and their opportunities and challenges Understand internal organizational structure/processes General business knowledge Develop networks Global outlook/awareness, including knowledge of foreign cultures, practices, economies and multilingualism	Archer and Davison (2008); Association of Graduate Recruiters (2016); Pegg et al (2012, citing CBI); Rhew et al (2019); Universities UK (2018); Universities UK International (2020); Webb and Chafer (2016)

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Section 3: Next steps

Working as a Careers Tutor in the UCL Department of Economics, and working on the Economics Network project on Employability Skills, has taught me that skills can be interpreted in very different ways. When I worked in consultancy I had to write in one day, which was very different to how I wrote by PhD, and indeed different again to how I had to train myself to write when working as a government economist. This experience demonstrates to me that we, as lecturers and students, need to have a deeper understanding of what skills mean from a work-place perspective if we are interested in helping students develop skills relevant to their future career, whatever sector that might be in. I respect that this is not the focus of everyone in higher education but for those that are interested in skills-development as a dimension of the student journey at university, getting the focus right is important.

The next phase of my research on 'What skills mean' will be a survey of employers of UCL social and historical science graduates. I shall wait for the madness linked to Covid-19 to calm down a bit before sending the survey out in Autumn 2020 and hope to share results by summer 2021

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