

Project Title: “Where am I now and where do I want to be?” A roadmap for graduate attributes.

Lead: Maxine V. Swingler, School of Psychology.

Contributors:

Sarah Armour, Careers Service, Jason T. Bohan, School of Psychology, Karen Clancey, Adam Smith Business School, Heather Cleland-Woods, School of Psychology, Dickon Copsey, Adam Smith Business School, Gordon B. Curry, School of Geography and Earth Sciences, Louisa Kuehme, SRC representative, Margaret Milner, Adam Smith Business School, Archie W. N. Roy, Careers Service.

Summary

The aim of this proposal is to increase student awareness of graduate attributes (GAs) at an early stage in their undergraduate career and encourage active student participation in development of GAs. This will be achieved by embedding graduate attribute reflection activities and employability within the curriculum in Level 2, and subsequently creating a GAs roadmap for staff and students, which can be tailored to their own subject discipline. The proposed project would be implemented in two phases. Year 1: Develop and evaluate resources for large pre-honours classes whereby students to reflect upon their current GAs in core teaching time, thus deepening student engagement in the process. This teaching approach will be supported by online classroom response technology, and will feed into careers workshops which aim to develop specific GAs that students feel least confident in. Networking events and connections with alumni through LinkedIn and the Network will help students to gain a deeper understanding of transferring their skills to the workplace and develop their professional networking skills. Year 2: Build a university wide evidence based GAs “roadmap”, collating internal and external GAs resources and case studies to provide a “one stop” user friendly guide to embedding GAs in the curriculum. The project outcomes are transferable in that a template for class activities and workshops can be used flexibly with disciplines across the university. The roadmap will be developed in conjunction with the LEAF toolkit –linking assessment and feedback practices to GAs where appropriate. By encouraging GA awareness at an early stage, this project addresses the Employment Junction in Student Transitions (QAA, 2015), and Stage 1 of the HEA UK framework for embedding employability in higher education (HEA, 2015). This project will benefit students because it will help to articulate clearly what GAs are, as well as to develop practical resources for staff and students which will support and develop our students’ GAs.

Aims and outcomes

Year 1

- 1) Develop and evaluate short self-reflection exercises for Psychology, Earth Sciences and Business School undergraduates at Level 2, which are explicitly linked to the University of Glasgow GA matrix. These exercises will be embedded within the curriculum (in the form of practical and/or employability classes), and the evaluation will help identify specific GAs where students feel they need further support. The method of delivery is practical in large classes, encourages active student participation in employability across the cohort, the evaluation can help focus the design of careers support for different cohorts.
- 2) Develop structured workshops which support students in applying the GAs identified in the reflection exercises in internship and graduate interview situations. These workshops will provide students with experience in drawing on their evidence of attributes in practice interview situations. The short-term advantage is in any transferability into interviews for competitive internships and in application forms. Workshops will be complemented by signposting how curricular activities are linked to GAs and opportunities to develop GAs, reaping longer term benefits by increasing student awareness of opportunities to develop their GAs earlier in their university career.
- 3) Develop case studies, using video interviews with Psychology, Earth Sciences and Business School alumni/ final year students, where students/professionals reflect on how specific GAs gained in their degree contributed to their career aspirations and outcomes. These video resources will benefit students by helping them to articulate

these skills in a job market context, learn how the graduates further developed their skills set following graduation and showcase what they can be doing now to prepare for post-graduation.

- 4) Develop students' confidence in professional networking with alumni to enhance their understanding of GA. This will be supported by the use of LinkedIn and The Network and also by an on campus networking event, involving professional bodies (e.g., British Psychological Society, University Geoscience UK), Psychology, GES, and ASBS alumni, and student societies.

Year 2

Develop an interdisciplinary road map to support students in their development of GAs, and to support staff in embedding GAs in their courses. The road map would pull on existing resources and support staff and students in: 1) identifying specific GAs within their own curriculum; 2) gaining co-curricular and extra-curricular experience to strengthen their GAs; 3) establishing links with alumni and professional bodies in their career path. The project will work in conjunction with the LEAF project (Sykes, Bohan, Swingler, 2015) in reviewing how GAs map onto a range of assessments, to allow staff and students to better map learning and teaching strategies to the personal development of GA.

Previous work

[Graduate attributes](#) at the University of Glasgow are defined as "...the academic abilities, personal qualities and transferable skills which all students will have the opportunity to develop as part of their University of Glasgow experience." There is increasing emphasis on the importance of making GAs (GAs) explicit to students as part of their degree programme (e.g., Cranney & Dunn, 2011), and the role of students themselves in proactively developing GAs as part of the student experience (Daniels & Brooker, 2014). The integration of GAs into the curriculum often takes the form of Personal Development Planning (PDP) capstone modules and stand-alone careers sessions delivered in the honours years of study (Wadkins & Miller, 2011). However, it has been argued that neither of these methods really "embeds" employability (Akhurst, 2005) and that awareness of GAs in the pre-honours years is typically low (Morris, Cranney, Jeong & Mellish, 2013). Recent debate in the H.E literature about the effectiveness of GAs initiatives and evidence from employers suggest that further support from universities is needed for students to effectively market and evidence their individual GAs (Green, Hammer & Star, 2009; Hugh-Jones & Sutherland, 2007).

Curry and colleagues have successfully developed student ePortfolios on Mahara which are explicitly linked to GAs, and have recently further developed this to include LinkedIn (Copley, Roden, Curry, Aidulis, & Price, 2015), contributing toward a growing body of [good practice resources](#). However, it can be challenging to engage students in non-core activities, such as building PDP portfolios, in large pre-honours classes, particularly as there is an increase in undergraduates who work part time or have voluntary work commitments while studying (Gbadamosi, Evans, Richardson, & Ridolfo, 2015; UCAS, 2011). The [GA student engagement strategy](#) emphasises the need to provide opportunities for students to engage with GAs at key milestones within the student lifecycle. One solution may be to use core teaching time for students to actively reflect upon GAs gained from the curriculum and wider student experience, and the value of further developing skills at pre-honours level.

Student engagement with employability activities is also influenced by their subject of study, with only 10% and 6.5% of COSE students attending one to one careers appointments studying Psychology and Geography & Earth Sciences (GES) respectively. A similar pattern emerges in student attendance at voluntary careers workshops delivered to schools across the college (source-CoSE summary of Careers Service & School Specific Activity, 2015-16). Furthermore, the number of students in Psychology and GES going into full time professional/managerial positions after graduation in 2013-14 was lower than the COSE average (source- CoSE Destination Statistics for 2013-14 leavers).

To try and address these issues, we have piloted employability exercises in pre-honours psychology and earth sciences practical classes. In the psychology practical classes, students were asked to reflect on their curricular and extra-curricular activities and how the practical skills gained from these activities were linked to GAs. Activities were followed by careers workshops focused on gaining confidence in communicating GAs in an interview context, and the benefits of engaging with professional networking sites. Initial findings (Swingler, Armour, Bohan, Cleland-

Woods, Curry, Roy, 2016) suggest a small but significant increase in self- efficacy beliefs in each of the GAs after the in class reflection activities. Students attending the workshops felt more confident and knowledgeable in presenting their attributes to employers. The level 2 sessions for Earth Sciences students investigate the use of professional and social networking, examine employer websites, job descriptions, and discuss summer Internships opportunities, and application procedures. Students also begin to develop own cv/profile using Mahara and/or LinkedIn, and this focusses attention on their GAs that they can either provide evidence of, or need to plan for.

These pilot findings will provide a basis for mapping GAs to develop a template for class exercises workshops which include key elements of the previous exercises in Psychology and GES, but allow the context of the subject discipline and employer to be varied. The focus on the mapping process over three different disciplines and cohorts will help establish which GAs are more intuitive to “map” onto curricular and extra-curricular activities, and which GAs, are more challenging for students to engage with. The aim in year 2 is for these in class activities to be used a flexible resource, used across disciplines, and to develop a GAs roadmap as a resource students and staff.

Student engagement

Consultation with students on the pilot activities and workshops elicited positive feedback. However, students felt that class activities and workshops should be aligned more closely with their subject of study, and were eager to find strategies to develop their GAs, e.g. *“I feel like we spoke a lot about how we develop GAs, but not how we would then go on to actually use them. So examples of attributes in relation to specific jobs would be helpful”*. Ms Louisa Kuehme (currently a Level 2 Psychology student and contributor on the bid) will provide feedback on materials for class activities in year 1 and contribute to the planning and piloting stages of the GAs road map in year 2. The SRC representative for Psychology (2016-17) will liaise with the SRC regards increasing student awareness of the opportunities to develop GAs. Student interns will conduct and analyse focus groups to explore individual students’ experience of the class reflection activities and workshops; the wider student experience, and how these impact on perceived GAs. Final year undergraduates and relevant student societies (e.g., PsychSoc, guearthsci) will be involved in the planning and organising of the networking event.

Methodology

The project activities in year 1 will involve further development and evaluation of the in class group work exercises and workshops for Level 2 Psychology and Earth Sciences undergraduates, and development of class exercises for Level 2 undergraduates in the Adam Smith Business School at the University of Glasgow. The exercises and workshops will follow a similar structure across subject disciplines. Class activities will adopt a problem solving approach, whereby students will be presented with a relevant job application scenario, and asked to map GAs gained through curricular and extra-curricular activities to the job specification. Students’ responses to the mapping activities will be recorded and the workshops will build on the mapping activities by analysing the responses, highlighting particular GAS where students were most/ least confident. This data would provide a focus for the workshops to include specific strategies to develop GAs that groups feel under confident about. Signposting of GAs (e.g., in course documentation and Moodle), will emphasise how GAs are linked to current curricular activities (e.g., assessments, group research projects, presentations) and advertise opportunities to develop GAs (e.g., voluntary work experience) throughout the academic year. Interviews final year students and alumni about their perceived development of GAs will be utilised these self-reflective case as a video resource to support the class exercises, and to build upon resources currently provided by the [careers service](#), such as the [Network](#). Networking events aimed at Level 2 students will invite alumni and representatives from professional bodies to meet with students. Using the format of round table speed networking (1 alumnus at each table with 9 students and the alumni rotate every 15 mins), means that the students get maximum time with each graduate and also helps students to feel more comfortable in approaching alumni.

The project activities in year 2 will finalise the template structure for the class exercises and workshops that can be applied across disciplines. We will consult with careers advisers within each college about subject specific scenarios to be used with the templates, and consult the literature on effective methods for embedding GAs. To provide a basis for the roadmap, we will collect qualitative and quantitative data to determine the priorities and challenges for

pre-honours undergraduates in development of their GAs. Staff leading initiatives in GAs/employability will be consulted on how their work could form a case study in the road map and the priorities and challenges faced by staff in embedding GAs in the curriculum. In conjunction with the project outcomes of LEAF, we will work with staff from different schools on how the assessment of GAs varies across academic disciplines and level of study. The final stage of development of the roadmap would collate resources generated by the activities of the present project, resources currently available from the [careers service](#), [student focused websites](#), [good practice resources](#), and external resources. The web resource would be designed using the T4 content management system and adopt a structure similar to the [QAA enhancement themes transitions roadmap](#), alongside consultation with Careers DiCE group (Digital Communications and Engagement) and LTU on the location and signposting of the project resources and roadmap.

Timetable

	Stage of Project	Milestones
Aug - Sept 2016	<ul style="list-style-type: none"> • Submit ethics application to CoSE ethics committee. • Design template for class activities and workshops. • Develop class activities and workshops for Level 2 Earth Sciences students (30th Sept). • Include signposting of GAs in course materials (Psychology). 	<ul style="list-style-type: none"> • Ethics application approved (September 2016) • Template for GAs class activities piloted in Psychology (September 2016). • GAs class activities delivered to Level 2 Earth Sciences students and evaluated using pre and post evaluation measures. (October 2016). • Level 2 Psychology course documentation ILOs updated to include how students' achievement of the ILOS map onto specific Graduate Attributes (September 2016)
Oct-Dec 2016	<ul style="list-style-type: none"> • Submit ethics application to CoSS ethics committee. • Recruitment of RA (starting in January 2017), including development of job specification and advertising. • Recruit student interns and GTAs. 	<ul style="list-style-type: none"> • Ethics application approved. • UG interns and GTAs (PG) appointed –starting in January 2017. • RA interviews conducted and RA appointed to start in January 2017.
Jan-Mar 2017	<ul style="list-style-type: none"> • RA starts work on the project. • Analyse evaluation of Level 2 Earth Sciences GAs class activities. • Deliver class activities and workshops for Level 2 Psychology students. • Develop and deliver activities and workshops for Level 2 students in the Business School. • Alumni recruited. • Plan and organise first Alumni event • Recruit participants for case studies. • Conduct interviews for case studies. • Edit video recordings of case studies. 	<ul style="list-style-type: none"> • First phase of data collection (Level 2 Earth Sciences) analysed. • Psychology & Business School GAs class activities delivered and evaluated using pre and post evaluation measures • Careers workshops & alumni event successfully delivered. • Interviews recorded. • Video case studies available on Moodle and Careers Service website.

April-July 2017	<ul style="list-style-type: none"> Collect end of year GAs survey data and employability experience data. RA/ Student interns collect focus group data and analyse evaluation data from Level 2 Psychology and Business School GAs class activities. 	<ul style="list-style-type: none"> All data collected and transcribed. Dissemination of year 1 project outcomes.
July-Aug 2017	<ul style="list-style-type: none"> Conduct literature review. Consult with careers advisors in each college. 	<ul style="list-style-type: none"> Templates available as LTC Good Practice Resource. Apply template for pre-honours class activities and workshops to further subject disciplines in colleges of MVLS, Social Sciences & Arts (following on from Year 1).
Sept-Oct 2017	<ul style="list-style-type: none"> Evaluate impact of 2016 Level 2 class activities on Level 3 engagement with PDP. Collect data from staff and students. Consult with careers service, LTU, & SRC on student and staff resources. Plan and organise second /third Alumni events. 	<ul style="list-style-type: none"> Evidence, data and materials collated for the roadmap.
Nov-Dec 2017	<ul style="list-style-type: none"> Design and develop pilot GAs roadmap 	<ul style="list-style-type: none"> Road map available on University of Glasgow website (internally).
Jan-March 2018	<ul style="list-style-type: none"> Evaluate GAs roadmap. 	<ul style="list-style-type: none"> Road map tested by a small group of staff and undergraduates from each college.
March-April 2018	<ul style="list-style-type: none"> Update roadmap according to staff and student feedback. Launch GAs roadmap. 	<ul style="list-style-type: none"> Road map available on University of Glasgow website.

Evaluation

In year 1 students will be surveyed before and after the class activities/ workshops using a measure of student self-efficacy beliefs in the University of Glasgow GA Framework before and after the class activities. Self-efficacy is defined as “judgments of capabilities to organize and execute courses of action” (Bandura, 1986, p.391), is known to predict educational and career outcomes (Gore, 2006) and play a key role in transitions through university (Cheng, Pringle-Barnes, Edwards, 2015). Student knowledge of and confidence in key employer requirements, common interview questions, and presenting attributes and skills to employers before and after the workshop activities. In the post class activity survey, we will also measure self-esteem (Rosenberg, 1965). Previous research has shown that self-esteem is known to predict employability (Fugate, Kinicki & Ashforth, 2002, Potgieter 2012), and may play a moderating role in student engagement with GA activities. In April-May 2017 we will survey of the effectiveness of the project activities and resources in in the longer term (e.g., students' decisions to develop their GAs further via extra-curricular activities) using a short survey combined with the Employability Experience Questionnaire (Yorke & Knight, 2007). We will use student led focus groups to explore students own experience of the class reflection activities and workshops.

In year 2 we will evaluate the pilot version of the GAs road map with a focus on priorities in mapping GAs from a student and staff perspective, perceived changes in student awareness of GAs and their application beyond university, usage statistics, ease of use and navigation, and applicability. We will also measure of the impact of the

Level 2 activities on a sample of students who have progressed to Level 3, looking at student engagement in honours employability and PDP programmes.

Transferability

The project activities in year 1 are sustainable in that course materials will be made available as a good practice resource on the Learning and Teaching Centre webpages for staff. The template for the class exercises and workshops will be flexible, fitting a range of disciplines (e.g. using a graduate job specifications for the civil service/HR/business), thus will impact beyond a single subject. Class activities are relatively short (30 minutes), designed to be integrated into existing practical classes or tutorials, and delivered by staff as part of their normal teaching duties. Workshop materials can be updated and delivered to future cohorts as part of existing careers service provision, and it is anticipated that the alumni event would become an annual fixture in the diary. The roadmap developed in year 2 would be available internally and externally via the University content management system (T4), and consultation with each college will ensure it is a viable resource for all subject disciplines in the University, particularly non-vocational degree subjects. The project will work in conjunction with the LEAF toolkit – linking assessment and feedback practices to GAs where appropriate. On a national level, this project reflects the current QAA enhancement theme on Student Transitions with transition to employment being a key factor on the [Transitions Roadmap](#). The project evaluation outcomes on self-efficacy will build upon work on [transitions skills and strategies](#) (Cheng et al, 2015). By encouraging GA awareness at an early stage, the project reflects Stage 1 of the HEA UK framework for embedding employability in higher education (HEA, 2015). The initial outcomes of Year 1 of the project would be disseminated at a suitable national higher education learning and teaching conference. A guide to implementing the class activities could be delivered as a Learning and Teaching Centre workshop. We intend to submit manuscript for publication also be submitted to a relevant HE journal after completion of Year 1 of the project.

Budget

Staff	Salary Scale and contract	Hours	Total
RA Year 1	Grade 6 spine point 25 Atypical worker.	16.5hours p w * 28 weeks	8311.00
RA Year 2	Grade 6 spine point 25 Atypical worker.	10 hours p w * 43 weeks	8720.00
Student Interns Year 1	2 * scholarship	40 hours each at £250 stipend	500.00
Student Interns Year 2	2 * scholarship	40 hours each at £250 stipend	500.00
GTA support for development /delivery of careers workshop and events.	GTA hourly rate (including NI and Holiday pay)	40 hours @ £19.20 PH	864.00
Consumables	Details		
Refreshments for 3 alumni event(s)	20 bottles wine, cheese/nibbles, juice, water for 60 people per event.		445.00
Amazon vouchers for participation in student focus groups.	15 * £10		150.00
Amazon Voucher as incentive for survey	20 * £10		200.00
			Year 1 = 10470.00
			Year 2 = 9220.00
			19690.00

Approval

A letter supporting the application is attached, signed by the Deputy Head of the School of Psychology, Professor Stephany M. Biello. As project lead, I consent to the bid document (if successful) and final report to be published on the Learning and Teaching Centre website.



References

- Academy, H. E. (2015). Framework for embedding employability-in-Higher Education. In H. E. Academy (Ed.), *Higher Education Framework Series: Higher Education Academy*.
- Akhurst, J. (2005). *Enhancing the employability of psychology graduates*. York: Higher Education Academy Psychology Network.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Cheng, M., Pringle Barnes, G., Edwards, C., & Manousos, V. (2015). Transition skills and strategies self-efficacy.pdf. In QAA (Ed.), *QAA Enhancement Themes: Transition*. Glasgow: Quality Assurance Agency Scotland.
- Copsey, D., Roden, C. Curry, G.B., Aidulis, D. & Price, V. . (2015). Framing the student journey: using LinkedIn to increase student engagement with the development of graduate attributes *LTDF Project, 2014-15*: University of Glasgow.
- Cranney, J. a. D., D.S. (eds.) (2011). *The Psychologically Literate Citizen: Foundations and Global Perspectives*. Oxford: Oxford University Press.
- Daniels, J., & Brooker, J. (2014). Student identity development in higher education: implications for graduate attributes and work-readiness. *Educational Research, 56*(1), 65-76. doi: 10.1080/00131881.2013.874157
- Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior, 65*(1), 14-38. doi: 10.1016/j.jvb.2003.10.005
- Gbadamosi, G., Evans, C., Richardson, M., & Ridolfo, M. (2015). Employability and students' part-time work in the UK: does self-efficacy and career aspiration matter? *British Educational Research Journal, 41*(6), 1086-1107. doi: 10.1002/berj.3174
- Gore, P. A. (2006). Academic self-efficacy as a predictor of college outcomes: Two incremental validity studies. *Journal of Career Assessment, 14*, 92-115.
- Green, W., Hammer, S., & Star, C. (2009). Facing up to the challenge: why is it so hard to develop graduate attributes? *Higher Education Research & Development, 28*(1), 17-29. doi: 10.1080/07294360802444339
- Hugh-Jones, S. S., E. . (2007). Employability: How to maximise the employability of Psychology graduates (Psychology, Trans.): University of Leeds.
- Morris, S., Cranney, J., Jeong, J. M., Mellish, L. (2013). Developing psychological literacy: Student perceptions of graduate attributes. *Australian Journal of Psychology, 65*(1), 54-62. doi: 10.1111/ajpy.12010
- Nielsen, K. L., Hansen, G. & Stav, J. B. (2013). Teaching with student response systems (SRS): teacher-centric aspects that can negatively affect students' experience of using SRS. *Research in Learning Technology, 21*(0). doi: 10.3402/rlt.v21i0.18989
- Potgieter, I. (2012). The relationship between the self-esteem and employability attributes of postgraduate business management students. *SA Journal of Human Resource Management, 10*(2). doi: 10.4102/sajhrm.v10i2.419
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press. .
- Swingler, M.V., Armour, S., Bohan, J., Cleland -Woods, H., Curry, Kueme, L., Roy, A.W.N. (2016). Where am I now and where do I want to be? Developing awareness of graduate attributes in pre-honours students. *Presented at Horizons in STEM Higher Education Conference 30th June-1st July 2016*, University of Leicester. <https://ukstemconference.wordpress.com/>
- Sykes, A., Bohan, J.T, & Swingler, M.V. . (2015). *Leading Enhancements in Assessment and Feedback (LEAF)* LTDF project University of Glasgow.
- UCAS. (2011). Balancing your work and study. Retrieved April, 2016, from <https://www.ucas.com/ucas/conservatoires/finance-and-support/managing-money/balancing-work-and-study>
- Wadkins, T. A., & Miller, R. L. (2011). Structuring the capstone experience in psychology. . In E. A. R. L. Miller, B. Marsteller Kowalewski, B. C. Beins, K. D. Keith, & B. F. Peden (Eds.), (Ed.), *Promoting student engagement* (Vol. Vol. 1: Programs, techniques and opportunities, pp. 95–102). Washington, DC.: Society for the Teaching of Psychology, US.
- Yorke, M., & Knight, P. (2007). Evidence-informed pedagogy and the enhancement of student employability. *Teaching in Higher Education, 12*, 157-170.