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Exploring the relationship between extracurricular activities and student self-efficacy within university

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ABSTRACT

This exploratory study addresses a gap in the literature for the potential in assessing domain-specific self-efficacy within the context of Higher Education (HE). Focusing on HE students' participation in extracurricular activities (ECAs), the study builds on the authors' previous research which recognised the impact of ECAs on HE students' lived experiences. An initial sample of two hundred and ninety-four students from a post-92 Higher Education Institution (HEI) in the North of England (UK) completed a survey designed to measure self-concepts of student self-efficacy, encompassing academic and social tasks, and fifty-four of those students completed a follow-up survey. The key finding was that there is a positive association between involvement in certain ECAs and self-efficacy in students within the university context. Furthermore, the results indicate a relationship between engagement with certain ECA-types and specific domains of self-efficacy. These findings have important implications in that supporting students to develop higher levels of self-efficacy specific to the university setting could have an impact on key HE outcomes, such as employability. Further research needs to be undertaken to establish if there is a causal link between involvement in ECAs and the development of self-efficacy whilst at university.

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Self-efficacy; academic self-efficacy; extracurricular activities (ECAs); employability; widening participation; student experience

Introduction

ECAs and self-efficacy

Recognised as an important tool for developing graduate employability (Pinto and Ramalheira 2017), ECAs have become a key theme of both national (Gov.UK 2018) and international (Department for Business Innovation and Skills 2011) employability agendas. Pinto and Ramalheira (2017) found that, regardless of academic performance, graduates who have engaged in ECAs may be more able to highlight their distinctiveness in the job market. Significant barriers to ECA engagement do persist for a range of students, including caring responsibilities, available time, and cultural expectations (Dickinson, Griffiths, and Bredice 2020). Other studies indicate that students with lower academic confidence may avoid ECA engagement, due to worries about being distracted from their studies (Thompson et al. 2013; Harvey et al. 2017). Students may also have perceptions that involvement in ECAs can be detrimental, including a reduction in confidence following negative experiences (Dickinson, Griffiths, and Bredice 2020).

By seeking to highlight additional benefits of participation and to facilitate considered involvement, this study explores the possibility of links between ECA engagement and broader personal

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development in the context of student learning. This study focuses on the concept of self-efficacy which Bandura defines as ‘an individual’s belief in his or her own ability to organise and implement action to produce the desired achievements and results’ (1997, 3). Bandura (2012, 1997) suggests that this belief is founded on four components: enactive mastery experiences, vicarious experiences, verbal persuasion, and psychological and affective states. Briefly taking each of these in turn, Bandura posits that an individual who has a strong track record of success will have higher levels of self-efficacy than someone who repeatedly fails to succeed. Individuals can also develop their self-efficacy vicariously by observing, evaluating and modelling other people’s behaviours. Verbal persuasion, or receipt of feedback, can also affect an individual’s self-efficacy, particularly if those providing the feedback are perceived by the individual to be credible, trustworthy and experts in their field. Finally, a person’s psychological state can affect their self-efficacy. Hendricks notes how these four components ‘reciprocally influence’ each other and how they are also affected by wider ‘contextual and demographic factors’ (2016, 36). She also suggests that an individual’s ‘efficacy beliefs develop as habits’ over time (Hendricks 2016, 33). Highlighting how research around self-efficacy has focused on children in primary and secondary schools, Hendricks makes a specific call for research that examines self-efficacy levels in adult students.

The concept of self-efficacy is widely understood to be a domain-specific measure of human agency. Bandura (2012) suggests that the general concept of self-efficacy can be categorised into particular types. By way of illustration, social self-efficacy measures an individual’s belief in their ability to participate in communal tasks that are needed to create and sustain relationships within their social and career settings. Self-efficacy can also be assessed according to a person’s ability to enlist social resources. Self-regulatory efficacy constitutes a person’s perceptions of their abilities to manage their own behaviour. Self-efficacy can also be categorised according to a person’s beliefs in their aptitude for taking part in independent academic activities. There is also career self-efficacy which measures an individual’s views on their proficiency in engagement in career development activities. This study focusses on the domain-specific self-efficacy particular to university experience, which utilises the aforementioned categories. Bandura measures academic self-efficacy ‘in terms of belief in one’s *learning efficacy and self-regulatory efficacy* to manage learning activities that eventually in academic accomplishments’ (2012, 25). Students with high levels of academic self-efficacy can set themselves sufficiently challenging goals and make use of learning strategies in order to achieve their full potential (Zimmerman, Bandura, and Martinez-Pons 1992).

The study explores the impact of ECA engagement on students’ self-efficacy within the context of the university experience through the following objectives. First, it examines stakeholder interest in ECA provision. Second, it investigates the importance of self-efficacy development at university and its influence on achievement of life goals, including employability. Third, it considers how ECA engagement can have a wider sphere of influence, by demonstrating a relationship with students’ overall self-efficacy levels in addition to their transferable skills.

ECAs and stakeholder interest

There is no agreed definition of what constitutes an ECA within the HE context. Citing a broad spectrum of ECA-examples, which includes ‘hobbies, social groups, sporting, cultural or religious activities and voluntary or paid work’ (2013, 136), Thompson et al. suggest that, to be classified as ECAs, activities must have both ‘communal interest/benefit’ and ‘structure/organisation’ (2013, 136). Others note that ECAs are often as activities that are organised within the Higher Education Institution (HEI) and have called for an expansion of the definition to include any activity, undertaken either on-site or off-site, and which falls outside the formal degree curriculum (Clegg, Stevenson, and Willott 2010; Stevenson and Clegg 2011; King, McQuarrie, and Brigham 2020).

The number of opportunities provided by, and promoted within, HEIs suggests how much stakeholders recognise the value of ECA-provision (Stuart et al. 2009). A UK Government Research Paper (Department for Business Innovation and Skills 2011) surveyed 414 careers advisory staff from

institutions across 25 countries. It found that 98% of respondents' institutions offered opportunities for ECA participation. These included: membership of clubs and societies, and employment and volunteering opportunities, both within and outside of the institution. HEI voluntary award schemes that recognise ECAs are also becoming more common, further demonstrating stakeholder recognition of their importance (Muldoon 2009; Watson 2011).

There is evidence to support student awareness of the importance of ECA engagement, including engaging tactically in ECAs to distinguish themselves in a competitive job market (Roulin and Bangerter 2013) and 'impress . . . potential employers' (Prospects 2021). As previously acknowledged, students can experience significant barriers which prevent their engagement in ECAs and divert their attention elsewhere. Furthermore, there are divides amongst the student population concerning the types of activities they engage in, with 'young, White, middle-class students' most likely to be involved in activities 'offered by their University and student's union' (Stuart et al. 2009, 2). For those who do not participate in any ECAs, there is evidence to suggest that they may understand the importance of engaging in ECAs but feel under pressure to prioritise other essential activities (Stuart et al. 2011; Dickinson, Griffiths, and Bredice 2020).

Against the backdrop of the continued UK Government focus on employability, (Gov.UK 2016) and the 'resultant pressure imposed on HEIs across the sector' (Dickinson and Griffiths 2017, 7), this study identifies the need for a measure to analyse the potential benefits of ECA engagement which do not conflict with students' competing priorities. One such potential measure is the development of academic self-efficacy which is considered in more detail below.

Importance of academic self-efficacy

Research indicates that academic self-efficacy should be considered holistically important given that it may affect students' achievement within the HEI setting, including: the students' learning on their courses (van Dinther, Dochy, and Segers 2011), their engagement with distance learning (Tang and Tseng 2013), their overall adjustment to HE (Shankland et al. 2010), as well as their personal development and overall course satisfaction (Bowles, Sharkey, and Day 2020). Furthermore, improvement in self-efficacy levels can affect students' accomplishment of short, medium and longer-term life goals (Lee and Vondracek 2014). In a systematic review of existing studies, Honicke and Broadbent (2016) found that there is a moderate relationship between academic self-efficacy and academic performance. It is important to note, however, that the studies that were reviewed focused exclusively on grade point average (GPA) outcomes as measures of performance. Addressing a gap in the literature, this study explores the potential for evaluating academic accomplishment through periodically assessing levels of academic self-efficacy.

Exploring the notion of self-efficacy more widely, the literature indicates that self-efficacy generation is specific to particular domains (Bandura 1997). However, Bandura (2006) also suggests that the development of self-efficacy in one field can augment individuals' perceptions of their competence across different activities, provided that the individual believes in the similarities of the skills needed for each field. Bandura also posits that increased self-efficacy levels can arise from engagement in multiple domains because the 'development of competencies is socially structured so that skills in dissimilar domains are acquired together' (2006, 308). Bandura goes on to identify specific categories of skill-types which can be developed from engagement in a wide range of activity-types. These include self-regulatory skills in assessing task demands, solving problems, and maintaining motivation; and coping skills to develop stress management and improve physical strength. Following on from this, provided that the participating student is clear about the similarities in skill set, there appears to be potential for students' engagement in different types of ECAs to generate self-efficacy across a range of domains.

Wider research on the development of self-efficacy indicates that there can be particular consequences for vulnerable or marginalised populations (see, for example, Best and Laudet 2010), and this may have implications for part of the student body. There is emerging evidence (Cano et al.

2017) that demonstrates how engaging in meaningful activities with prosocial groups, which the authors suggest could include ECAs, not only builds quality of life and wellbeing but also helps to develop personal capital that incorporates self-efficacy and resilience skills.

ECA engagement: a wide sphere of influence

Considering the focus of UK Government policy on the responsibility of HEIs to support the development of students' employability skills (Minocha, Hristov, and Reynolds 2017), students' self-belief in their academic capabilities may impact directly on future outcomes. Therefore, it is important to consider the influence that higher academic self-efficacy may have on employability outcomes. In a similar vein to the discourse around ECAs, it seems that employability is also fraught with definitional difficulties (Hillage and Pollard 1998; McQuaid and Lindsay 2005). Notwithstanding such issues, Yorke defines employability as being 'a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy' (2006, page 8).

As Berntson, Naswall, and Sverke (2008) note, the literature suggests the existence of close links between the concepts of employability and self-efficacy. Their paper highlights that, although these two terms have been used interchangeably, they should be treated as separate but associated conceptions. They posit how the development of an individual's employability can increase their levels of self-efficacy. Conversely, other studies submit that the extent of an individual's self-efficacy determines their employability (see, for example, Qenani, MacDougall, and Sexton 2014; Ojonugwa et al. 2015). The literature also identifies specific connections between different types of self-efficacy and employability. By way of illustration, research conducted by Dacre Pool and Qualter (2013) reveals how emotional self-efficacy is 'significantly related' to employability. This study seeks to address a gap in the literature through its consideration of how HE students' levels of self-efficacy specific to the university context could be used to measure their academic development against the backdrop presented by the current employability agenda.

The existing literature identifies a positive correlation between ECA engagement and the development of transferable skills for employability, such as communication, teamwork and project management (Wood, Little, and Goldring 2011). Other research suggests that the term employability can be understood more holistically by reference to 'four broad and interrelated components; namely, understanding, skills, efficacy beliefs ... and metacognition' (Qenani, MacDougall, and Sexton 2014, 201) and that the most important of these are: self-efficacy, self-awareness, and self-confidence (Lees 2002). In considering whether stakeholders need to similarly broaden their perceptions about the benefits of ECAs, the authors have identified existing literature which demonstrates that ECA participation can result in even more impact; playing important parts in 'whole-person education' (Chan 2016, 224) and 'life-wide learning' (Jackson 2008).

Whilst employability discourse around careers development has been criticised for over-emphasising the role played by the individual at the expense of external influences (Dickinson and Griffiths 2017), this study additionally explores the potential relevance of other factors for wider self-development. In particular, Bandura outlines a triadic model of reciprocal causation which suggests that self-efficacy development is determined by the behaviour or action required, personal internal factors, and the external environment (1997). Bandura also suggests that the strength of each of these factors on any given action is fluid, rather than fixed, and will vary according to changes in circumstances and over time. In this study, the authors explore how involvement in ECAs may provide context-lending benefits and support students in understanding the broader application of their studies, through exploring whether there is a link between ECA engagement and higher levels of self-efficacy specific to the university context.

In summary, the tri-fold objectives of this study are to:

- (1) examine whether there is an association between ECA engagement and students' self-efficacy specific to the university context;
- (2) understand if a relationship exists between different ECA-types and self-efficacy at university; and
- (3) understand more about the potential influence of ECA engagement on students' self-efficacy at university over time.

To explore how a wide range of ECA-types may affect students' self-efficacy at university, and with the aim of being inclusive, this study adopts a broad definition of ECAs as any activity outside of timetabled classes. This includes all paid and unpaid activities, regardless of their communal interest or benefits, and notwithstanding their levels of structure or organisation.

Methods

Sampling and respondents

Data collection focussed on one case-study HEI in the North of England (UK). The institution in question hosts c.30,000 students who are studying diverse courses ranging from typical academic disciplines to highly applied courses designed to meet the needs of a range of industries and work sectors. The university is a 'post-1992' HEI (HEIs who were granted university status through the Further and Higher Education Act 1992). The researchers used a convenience sampling approach (Bryman 2012) due to the accessibility of the target population in relation to the researchers and the fact that all of the students in the case study institution were eligible to take part. The aim of the study, to investigate a possible link between self-efficacy and ECA participation, meant that a non-probability, convenience sample was appropriate.

The data was collected through a survey that was designed to measure students' self-efficacy specific to the university context. Respondents were invited to complete the survey on two occasions during the academic year. Respondents confirmed that they were giving informed consent and ethical approval for this data collection was granted by the HEI's ethics committee. During the first stage of the data collection, two hundred and ninety-four respondents completed the survey. The majority were female (253), and the ages ranged from 18–44, with a mean of 20.63 years (SD = 4.15) and a median of 19 years. Whilst the majority of the sample comprised first year undergraduate students (141), all other levels, including postgraduate students, were represented. During the second stage of the data collection, where all the first stage respondents (294) were invited to take the survey again, fifty-four respondents completed the survey. The majority were female (51), and the ages ranged from 18–37, with a mean age of 20.85 years (SD = 4.08). Almost half the sample this time were first year students. The researchers concluded that there was insufficient variation in the demographics of the respondents to draw any valid comparisons of key characteristics (namely, nationality, language, ethnicity, employment status, and socioeconomic background) in the findings. This is a recognised limitation of this study which could be addressed in future research.

Measures

Measuring domain-specific self-efficacy within the university context

In order to achieve the stated objectives, the researchers developed questionnaire items using scales for reporting student efficacy levels. The development of the items was based on Bandura's guidelines for self-efficacy scales (Bandura 2006). Some of the items included were created from Bandura's self-efficacy for school children scale and adapted to reflect the HE context. Bandura suggests that self-efficacy scales 'must be tailored to the particular domain of functioning that is the object of

interest' (2006, 308). In this case, because the researchers were interested in measuring self-efficacy at university, they included scale questions which asked students to rate their capabilities across several academic areas including notetaking, research skills, and applying feedback. Bandura (2006) also outlines the importance of 'higher-order self-regulatory skills' (308) for success across a range of domains. These can include avoiding distractions, setting goals, and managing negative emotions in order to maintain motivation. He suggests that these skills are not only important for self-efficacy in a range of domains, but they can also be developed across several areas of activity. Recognising how social networks could be viewed as an important sub-skill for both engagement with ECAs (Tieu et al. 2010) and successful engagement with HE (Wilcox, Winn, and Fyvie-Gauld 2005), the researchers believed that it was also important to include items which related to engaging social support networks as the self-regulatory skills. Finally, the researchers included a category of 'career self-efficacy' (Lent and Hackett 1987) to acknowledge the increased focus on graduate employment as an outcome of higher study.

Thirty-nine items were developed to tap the six *a priori* self-efficacy domains specific to the university context (see Table 1). In line with Bandura's research (2012) discussed above, these comprise: social self-efficacy, enlisting social resources, self-regulatory efficacy, self-regulated learning, academic achievement, and career self-efficacy. These domains were included in the questionnaire to measure self-efficacy because of their links to attributes which students may develop during ECA participation whilst at university. These include increased social confidence, more efficient time management, and a clearer sense of academic and career goals. This enabled an examination of whether self-efficacy beliefs can be generalised to similar activities. To separate the concepts of intention from perceived ability, which self-efficacy is predominately measuring, the researchers phrased the rating scales in *can do* rather than *will do* language in accordance with Bandura's guidelines (2006).

In line with Bandura's guidelines, the researchers employed an 11-point Likert scale to allow respondents to rate their level of self-efficacy from 0 to 100. They anchored the middle and each end of the scale with 'Cannot do at all' for 0, 'Moderately can do' for 50 and 'Highly certain can do' for 100. Although there are questions about the limited potential for increased information retrieval in scales above 7 points, the researchers recognised how respondents may perceive longer scales as offering them increased opportunities for expressing their feelings adequately, which was a pertinent concern for this study (Preston and Colman 2000). Similarly, the researchers used 0–100 for the scale for its similarity to percentage points and subsequent ease of reference with regards to ability.

Additional items

The researchers also collected self-reported demographic information which included: age, level of study, gender, nationality, language, ethnicity, employment status, and socio-economic background (Office for National Statistics 2019). Respondents were also asked to indicate if they were currently

Table 1. Domains of educational and social development.

Self-efficacy domain	Description	Example scale item
Social self-efficacy	Self-reported perception of ability to take part in social activities	<i>I can work well in a group</i>
Enlisting social resources	Self-reported perception of ability to ask others for help	<i>I can get another student to help me when I get stuck on course work</i>
Self-regulatory efficacy	Self-reported perception of ability to manage own behaviour	<i>I can control my emotions</i>
Self-regulated learning	Self-reported perception of ability to take part in independent academic activity	<i>I can finish my assignments within the set deadline</i>
Academic achievement	Self-reported perception of ability to achieve academic goals	<i>I can apply feedback from tutors</i>
Career self-efficacy	Self-reported perception of ability to take part in activities related to career development	<i>I would feel confident applying to a new opportunity</i>

Table 2. Categories of extra curricular activities (ECAs).

Re-coded category of ECA	Example survey responses
Volunteering	Volunteering at food bank
Part-time work	Work as a receptionist, retail work
Sport/active	Gym, hockey, netball
Artistic/creative	Drawing, gardening
Student representative	Course representative, society president
Academic/personal development	Leadership course, reading

engaged with ECAs. In addition to a yes/no declaration, the researchers also invited respondents to indicate the type of activity in a free-text response format. This was necessary to differentiate between engagement with various ECA types. The researchers identified six categories of ECA-types based on participant free-text responses. These were re-coded as: volunteering, part-time work, sport/active, artistic/creative, student representative, and academic/personal development activities (see Table 2).

Data collection and analysis

The researchers collected data at two points in time. During the first stage, respondents completed the scale developed to measure Self-Efficacy at university and were also asked about their ECAs along with demographic questions. Five months later, the researchers invited the same respondents to complete the survey again. The items developed for the Self-Efficacy at university scale were expected to cluster into the six *a priori* domains outlined in Table 1. In developing self-efficacy measures, Bandura (2006) states that 'items tapping the same domain should be correlated' (315) and that factor analysis could be employed to confirm this homogeneity. As such, in order to confirm the factor structure of the measure all items ($n = 39$) were subjected to Factor Analysis. Scale reliability was also conducted on the emerging factors. Overall scale score means and domain means were calculated for both time points to examine changes in self-efficacy specific to university over time. Overall scale and domain mean scores were also used to explore the relationships with engagement in ECAs. In addition, data for ECA-type was explored to see if the type of activity had any bearing on self-efficacy. ECA-type was entered in free text fields, so it had to be recoded along thematic lines as outlined in Table 2. Due to the lack of variance in the sample's characteristics (namely, level of study, gender, nationality, language, ethnicity, employment status, and socio-economic background), there was not sufficient statistical power to explore the impact of involvement in ECAs on academic self-efficacy broken-down by these characteristics.

Results

Measuring self-efficacy at university: factor analysis

Due to the adaptations made to the wording of the questionnaire items and the inclusion of domain-specific items that relate to self-efficacy within the university context, the factor structure of the measure was examined before the research objectives were explored. Principal Components Analysis (PCA) was employed because the primary purpose was to identify and compute composite scores for the factors underlying the Self Efficacy domains in the HE context using an adapted version of Bandura's (2006) self-efficacy scale for school children. The data was found to meet several factorability criteria including Kaiser–Meyer–Olkin statistics ($KMO = 0.926$) and Bartlett's test of sphericity, $X^2(741) = 6625, p < .001$, indicating sufficient sample size. It was expected that the factors would be related based on Bandura's (1997) original theory of Self-Efficacy; as such an oblique rotation method (direct oblimin) was applied to the data. PCA confirmed a 4, rather than a 6, -factor solution, explaining 52.8% cumulative variance. The data was also forced into 6 factors in line with Bandura's (2006) self-efficacy for school children. However, taking recommendations from Fabrigar et al. (1999), who suggest that multiple criteria should be considered when determining the number

Table 3. Summary of the emerging domains of self-efficacy at university.

Domain name	Description	Example item	Number of items loading onto the factor	Reliability (Cronbach's alpha)
Academic self-efficacy	Confidence/ self-belief in conducting a number of academic tasks	<i>I can get myself to study when there are more interesting things to do</i>	16	0.89
External Reach	Confidence/self-belief in approaching professionals and going outside of the university or course for information	<i>I can make contact with professionals working in careers which interest me</i>	8	0.91
Relatedness	Confidence/self-belief to take part in social activities and feel connected to peers	<i>I can work well in a group</i>	6	0.82
Help Seeking	Confidence/self-belief in ability to seek out guidance, support and advice	<i>I can get tutors to help me when I get stuck on coursework</i>	5	0.82

of factors, the 4-factor solution was preferred. This was due to: (a) the 'levelling off' of eigenvalues on the scree plot after four factors; (b) parallel analysis further confirming a 4-factor solution; and (c) the items being adapted to the HE context and thus varying in content and scope compared to Bandura's scale developed for use with school-aged children.

The items clustered into factors that appear to relate to the following domains: external reach (going outside of the university for information), academic self-efficacy, relatedness (social self-efficacy) and help seeking. These are summarised in [Table 3](#).

A total of four items were removed because they did not contribute to a simple factor structure and failed to meet a minimum criterion of having a primary factor loading of .4 or above, and no cross-loading of .3 or above (Field 2009). The item 'I can carry on conversations with professional people' cross-loaded weakly on both External Reach and Relatedness. The item 'I can ask for help from the careers service' had factor loadings between .3 and .4 on both External Reach and Help Seeking. 'I can access help with career – related issues' had similar factor loadings, between .4 and .5, on External Reach and Help Seeking. The item 'I can ask for help from student services' cross loaded similarly on External Reach and Help Seeking (see [Table 4](#) in the appendix for details of the factor loadings).

The factors were computed as domains (or subscales) of self-efficacy at university. Following this, Cronbach's alpha analysis was used to test the reliability; all four domains were found to have exceptional internal consistency (Cronbach's alpha was between 0.82–0.91). Further elimination of items did not substantially increase the alphas for any of the domains. These domain composite scores were used for further analyses to test explore the main objectives of this study.

Self-efficacy at university scores

Descriptive data is presented in [Table 5](#) to show the mean scores for students' self-reported overall self-efficacy and broken down by the domains at each time point.

Self-efficacy was rated on an 11-point scale. This demonstrates how respondents reported fairly high confidence (above 7) in their overall self-efficacy attributes, and overall self-efficacy increased from time point one to two (to above 8). Increases in the domains of self-efficacy were also observed.

Relationship between ECA engagement and self-efficacy at university

Correlational analysis was conducted to explore the relationship between ECA engagement and self-efficacy at university. Spearman's Rho (a non-parametric correlation) was used as the data was negatively skewed due to the majority of respondents reporting no engagement with ECAs (53.4% $n = 156$). There was a significant positive correlation between the number of ECAs and overall self-efficacy at university at time one (Rho = .23, $p < .01$, $N = 292$), suggesting that respondents who took

Table 4. Factor loadings based on a principal components analysis for the adapted self-efficacy scale for the university context.

Item	Component/Factor			
	Academic Self- efficacy	External Reach	Help Seeking	Relatedness
1. I can always concentrate in class	0.606		0.336	
2. I can get another student to help me when I get stuck on course work				0.631
3. I can find the information I need via Library Gateway			0.694	
4. I can get tutors to help me with social problems			0.623	
5. I can apply feedback from tutors			0.670	
6. I can ask for help from library staff			0.678	
7. I can motivate myself to do course work	0.663			
8. I can achieve the degree classification I am capable of	0.577			
9. I can work well in a group			0.307	0.557
10. I can finish my assignments within the set deadline	0.594			0.383
11. I can get myself to study when there are more interesting things to do	0.740			
12. I can ask for help from the careers service		0.316	0.443	
13. I can carry on conversations with professional people		0.352		0.324
14. I can find the information I need in the library			0.520	
15. I can resist peer pressure to drink alcohol	0.554			0.357
16. I can organise my coursework	0.775			
17. I can remember information well	0.478			
18. I can arrange a place to study without distractions	0.559			
19. I can identify reliable career information resources	0.308	0.420		
20. I can pass my modules this year	0.441			
21. I can prioritise my timetabled lectures/seminars when there are more fun things to do	0.696			
22. I can take useful notes in class	0.632			
23. I can resist peer pressure to take drugs	0.408			0.359
24. I can control my emotions	0.462			
25. I can research a career idea which interests me	0.437	0.311		
26. I feel confident applying for extracurricular activities which interest me		0.697		
27. I can make contact with professionals working in careers which interest me		0.717		
28. I would feel confident setting up a new student society		0.691		
29. I can get tutors to help me when I get stuck on course work			0.673	
30. I can access help with career – related issues		0.430	0.573	
31. I would feel confident applying to a new opportunity		0.618		
32. I can get a friend to help me with social problems				0.635
33. I can make and keep friends easily				0.719
34. I can carry on conversations with others		0.338		0.694
35. I can stop myself from skipping class when I feel bored or upset	0.590			
36. I would feel confident arranging to meet a professional		0.700		
37. I already have/or can develop the skills to participate in a university society		0.655		
38. I can ask for help from student services		0.478	0.411	
39. I can find opportunities within the University relevant to me		0.591	0.333	

'oblimin' rotation was used.

Factor loadings over .40 appear in bold.

Table 5. Descriptive data for self-efficacy at each time point.

Self-efficacy domain	Time one (N = 294)	Time two (N = 54)
	Mean (SD)	Mean (SD)
Academic Self-efficacy	8.45 (1.36)	8.50 (1.62)
External Reach	7.36 (1.84)	7.39 (2.02)
Help Seeking	7.56 (1.73)	7.59 (1.69)
Relatedness	8.75 (1.57)	8.66 (1.61)
Overall Self-efficacy	7.29 (1.24)	8.05 (1.40)

Table 6. Correlations between self-efficacy and engagement in ECAs.

	Time point 1 (n = 298)	Time point 2 (n = 54)
	Spearman's Rho (p-value)	Spearman's Rho (p-value)
Overall Self-Efficacy	0.225*** (p < .001)	0.398** (p = 0.003)
Academic Self-Efficacy	0.131* (p = 0.025)	0.254 (p = 0.064)
External Reach	0.337*** (p = .001)	0.427** (p = 0.001)
Help Seeking	0.182** (p = 0.002)	0.184 (p = 0.182)
Relatedness	0.147* (p = 0.012)	0.180 (p = 0.192)

* p < .05, ** p < .01, *** p < .001.

part in a higher number of ECAs had higher scores of overall self-efficacy. At time two, there was also a significant positive correlation between number of ECA and overall self-efficacy ($Rho = .40, p < .01, N = 54$), again suggesting that the more activities that respondents engaged with, the higher the scores of self-efficacy specific to the university context.

Table 6 shows this broken down by the self-efficacy at university scale domains. At time one, significant correlations were found between all self-efficacy domains and the number of ECAs. The strongest relationship was found between External Reach and the number of ECAs ($Rho = .34, p < .01, N = 294$). This suggests that those respondents with higher levels of confidence in approaching professional people and services (outside of their university course) were more engaged with ECAs. The same, albeit stronger, relationship was found at follow-up ($Rho = .48, p < .01, N = 54$).

ECA-type and self-efficacy at university

To explore the impact of the type of ECA (ECA types are outlined in Table 2) on students' levels of self-efficacy compared to students not involved in those activities, t-tests were conducted. The ECA type categories: Artistic, Dance and Academic/Personal Development were not included in the analyses due to low reported involvement in these activities across the sample (1, 3 and 4 cases respectively). Noteworthy differences in self-efficacy were observed between those students involved in volunteering, student societies and student representative activities and those who were not (see Table 7). Students involved in Student Representative duties reported significantly higher overall self-efficacy compared to those not involved ($t(133) = -2.14, p = .03$). Significant differences were also found in the domain of Academic Self-efficacy and involvement in Student Representative activities; students engaged in these activities reported significantly higher levels of self-efficacy specific to the External Reach ($t(133) = -2.56, p = .01$) and Help Seeking domains ($t(133) = -2.59, p = .01$). In addition, students participating in Volunteering ($t(133) = -2.11, p = .04$) and those involved in Student Societies ($t(133) = -2.24, p = .03$) reported significantly higher self-efficacy specific to the External Reach domain. This suggests that students who engage with these types of ECAs have higher confidence in their own capabilities when approaching professionals and going outside of the university or course for information, compared to those students who are not involved in these activities. Conversely, part-time work had no impact on overall self-efficacy or any of the four domains, including External Reach. The key findings are illustrated in Table 7.

ECA engagement and self-efficacy at university over time

To explore differences in students' self-efficacy from data collection at time one and time two between those respondents who reported engaging in ECAs and those who did not, the researchers conducted a mixed ANOVA. Self-efficacy at university mean scores at time one and at time two were entered to look at within-subject effects and engagement in ECAs was entered as between-subjects. There was a significant main effect of overall self-efficacy suggesting that all respondents' self-efficacy at university increased over time ($F(1,52) = 13.33, p < .001, \text{partial eta squared} = .22$),

Table 7. Key findings to show the impact of ECA type on students' self-efficacy.

	Volunteering		Part-time work		Fitness/Sport		Student Societies		Student Representation	
	Involved	Not involved	Involved	Not involved	Involved	Not involved	Involved	Not involved	Involved	Not involved
Overall Self-efficacy	7.78	7.47	7.55	7.58	7.34	7.71	7.86	7.47	8.20*	7.49
Academic Self-efficacy	8.70	8.58	8.59	8.64	8.35	8.78	8.75	8.58	9.18	8.55
External Reach	8.39*	7.73	7.76	8.09	7.81	8.04	8.51*	7.76	9.01*	7.82
Help Seeking	8.01	7.81	7.86	7.88	7.69	7.99	8.14	7.79	8.92*	7.75
Relatedness	9.16	8.94	9.05	8.98	9.01	9.01	9.19	8.95	9.12	9.00

* indicates significant mean differences in self-efficacy between those involved and those not involved in ECAs (at the significance level $p < .05$).

regardless of their involvement in ECAs. This may be expected to happen in all students as they progress through their university studies. There was no interaction between self-efficacy and involvement in ECAs ($F(1, 52) = .20, p = .66$, partial eta squared = .004) and no effect of involvement in ECAs over time ($F(1, 52) = 2.89, p = .095$, partial eta squared = .05). This suggests that there was no difference in self-efficacy at university scores by ECA grouping (namely, those involved in ECAs and those not involved), although there was a medium sized effect (namely, those engaged in ECAs had slightly higher self-efficacy collapsed across times) but the study was not statistically powered to detect this and the ECA grouping does not explain changes in self-efficacy overtime.

Discussion

The central aim of this study was to investigate whether there is an association between overall self-efficacy at university and participation in ECAs. As a result of this, and directly addressing the objectives of this study, the authors make the following propositions:

- (1) There is a relationship between engagement with ECAs and higher self-efficacy at university. Furthermore, respondents who were involved with more than one ECA had higher self-efficacy specific to the university context compared with those who were involved with one ECA or none.
- (2) The results of this study indicate that there were distinct self-efficacy domain-specific outcomes when comparing different types of activity. ECAs more closely associated with the HEI environment (student representative activities) were linked with higher self-efficacy scores overall than off-campus activities (volunteering and part-time work). ECA types were associated with higher self-efficacy, domain-specific scores. For example, those who declared their engagement in volunteering scored highly in the 'external reach' domain.
- (3) The results do not support a causal effect between engagement with ECAs and higher self-efficacy at university over time. However, the results show that all students, regardless of ECA engagement, reported increases in their overall self-efficacy over time.

With regards to the first proposition, what remains to be determined is whether it is those students with higher overall self-efficacy who are more likely to engage with ECAs or if engagement with ECAs is a contributing factor to higher self-efficacy at university. This is a recognised limitation of this study and one which could be addressed in future research. An unexpected finding concerned respondents who reported engagement with more than one activity. The results confirm that engagement with more ECAs led to a higher overall self-efficacy comparatively. As reported earlier, the numerous barriers to ECA engagement (Dickinson, Griffiths, and Bredice 2020) could indicate that most students will be unable to engage in more than one ECA. In addition to this, students may feel under pressure to focus solely on their studies when they have a number of competing priorities (Stuart et al. 2011; Dickinson, Griffiths, and Bredice 2020) and it could be posited that diverting attention to a broader range of activities would have a negative outcome on their self-efficacy. However, the results suggest that there is a small number of highly motivated students who have the confidence in their academic abilities, and the economic, social and cultural freedom, to engage with a wide range of ECAs.

The self-efficacy factor of external reach was an important result for gaining insight into the differential prospects of various ECAs. Respondents who were involved with volunteering, participating in student societies, or acting as student representatives scored comparatively higher on this factor, so reported significantly greater confidence in approaching professionals and seeking information outside of their course or university. This has clear implications for students' employability where increased confidence to engage externally can lead to further opportunities for students' professional development (Dickinson and Griffiths 2017).

The most influential ECA on overall self-efficacy was the role of student representative. Bandura (2006) suggests that, for self-efficacy to be increased across domains, individuals must perceive the similarities in skills required across these domains. The results for student representative activities suggest that students may be more likely to judge that some ECAs and academic skills are aligned, contributing to an overall university experience, and thus constituting a similar domain with regards to self-efficacy perceptions. This finding has implications for the area of widening participation. If, as suggested by Stuart et al. (2009, 2) 'young, White, middle-class' students are more likely to engage in ECAs connected to their HEI, which includes student representatives, there is the potential for under-represented students to miss out on the benefits reported in the results.

Related to this point, the researchers need to look more closely at the respondents who were engaged with paid work. There were two opportunities to declare participation in paid work on the survey. Question 7 asked, 'What is your current employment status?' and Question 9 asked respondents to declare if 'I am currently or I have been involved in extra-curricular activities (any activity outside of timetabled classes, including volunteering and part-time work) during my time at university'. Seventy-five respondents declared paid employment at Q7 but did not translate this into an affirmative response for Q9. This gives an insight into students' perceptions of the status of their paid work experience and it strengthens previous findings that students tend to minimise their skills and experience from paid work opportunities (Dickinson, Griffiths, and Bredice 2020).

Overall, this study demonstrates that self-efficacy in the university context may be important not just for academic success, but for encouraging students to feel confident in accessing wider developmental opportunities and assessing their capabilities within different academic and social domains. This supports the notion of 'whole-person education' (Chan 2016, 224); participation in the full university experience, not limited to the academic undertaking, plays an important role in students' personal development and is therefore likely to impact on their future employability. Drawing on this, the authors posit that HEIs should give attention to the curricular and extracurricular opportunities offered to students to develop their self-efficacy in this context.

Conclusion and recommendations

Notwithstanding the limitations of this study, the fact that all respondents, irrespective of their engagement with ECAs, experienced an increase in their academic self-efficacy scores at time 2 addresses a gap in the existing literature by demonstrating the potential for assessing self-efficacy across a number of domains specific to the university context, using this approach as an alternative or additional measure of academic development. Previous studies have focused on the relationship between academic self-efficacy and grade performance (Honicke and Broadbent 2016), rather than examining self-efficacy at university over time as a developmental tool in its own right.

Furthermore, when considering the potential for ECA engagement to cause anxiety and lower students' confidence (Dickinson, Griffiths, and Bredice 2020), the self-efficacy at university measure could be employed to target activities based on students' highest domain scores in order to reduce this risk. Through the analysis of self-efficacy across these specific domains, students may be able to select ECAs with the greatest personal development outcomes for them individually. The results demonstrate that some respondents are engaged in several ECAs and subsequently these respondents also recorded higher overall self-efficacy than others. Selecting activities carefully at the outset of their studies may encourage students to broaden their involvement later as they gain confidence.

The results of this study support a renewed focus for HEIs to consider how they work to explicitly develop their students' self-efficacy at university through, for example, skills-development modules and study development activities, considering the potential wider impact of higher self-efficacy across the university specific domains.

Recommendations for further research include assessing self-efficacy in students over time to establish if engagement with ECAs have an impact on the development of academic self-efficacy. Considering the disconnect reported between participation in paid work and declaration of

engagement in ECAs, there is also scope for a standalone study examining the gap between student and employer concepts of what constitutes a valuable experience and supporting students with reframing their paid work experience. Furthermore, HEIs could benefit from an assessment of the types of activities designed to enhance student overall self-efficacy at university which might impact on their future employability; these assessments could form part of their academic programmes in order to meet the key recommendation from this study. In addition to the recommendations outlined above, further studies are warranted to explore the impact of involvement in extra-curricular activities on students' academic self-efficacy across a range of HEI institutions, including both applied or 'post-1992' HEIs and the more traditional HEIs or 'Russell group' universities (Russell Group 2021).

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References

- Bandura, A. 1997. *Self-efficacy: The Exercise of Control*. New York: W. H. Freeman and Company.
- Bandura, A. 2006. "Guide for Constructing Self-efficacy Scales." In *Self-efficacy Beliefs of Adolescents*, edited by F. Parjares and T. Urdan, 307–331. Connecticut: IPA.
- Bandura, A. 2012. "On the Functional Properties of Perceived Self-Efficacy Revisited." *Journal of Management* 38 (1): 9–44. doi:10.1177/0149206311410606.
- Berntson, E., K. Naswall, and M. Sverke. 2008. "Investigating the Relationship between Employability and Self-efficacy: A Cross-lagged Analysis." *European Journal of Work and Organizational Psychology* 17 (4): 413–425. doi:10.1080/13594320801969699.
- Best, D., and A. Laudet. 2010. "The Potential of Recovery Capital." *RSA Projects. Royal Society for the Arts*. Accessed 8 September 2020. <https://www.thersa.org/discover/publications-and-articles/reports/the-potential-of-recovery-capital>
- Bowles, D., G. Sharkey, and C. Day. 2020. "Psychological Predictors of National Student Survey Course Satisfaction." *Journal of Perspectives in Applied Academic Practice* 8 (2): 7–15. doi:10.14297/jpaap.v8i2.423.

- Bryman, A. 2012. *Social Research Methods*. 4th ed. Oxford: Oxford University Press.
- Cano, I., D. Best, M. Edwards, and J. Lehman. 2017. "Recovery Capital Pathways: Mapping the Components of Recovery Wellbeing." *Drug and Alcohol Dependence* 181: 11–19. doi:10.1016/j.drugalcdep.2017.09.002..
- Chan, Y. 2016. "Investigating the Relationship among Extracurricular Activities, Learning Approach and Academic Outcomes: A Case Study." *Active Learning in Higher Education* 17 (3): 223–233. doi:10.1177/1469787416654795.
- Clegg, S., J. Stevenson, and J. Willott. 2010. "Staff Conceptions of Curricular and Extracurricular Activities in Higher Education." *Higher Education* 59 (5): 615–626. doi:10.1007/s10734-009-9269-y.
- Dacre Pool, L., and P. Qualter. 2013. "Emotional Self-efficacy, Graduate Employability, and Career Satisfaction: Testing the Associations." *Australian Journal of Psychology* 65: 214–223. doi:10.1111/ajpy.12023.
- Department for Business Innovation and Skills. 2011. "Supporting Graduate Employability: HE Practice in Other Countries." Accessed 28 August 2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/32421/11-913-supporting-graduate-employability-other-countries.pdf
- Dickinson, J., and T. Griffiths. 2017. "Building Bridges: A Critical Analysis of University and Industry Collaboration to Improve Diverse Access to Elite Professions." *Industry and Higher Education* 31 (4): 227–238. doi:10.1177/0950422217707641.
- Dickinson, J., T. Griffiths, and A. Bredice. 2020. "It's Just Another Thing to Think About': Encouraging Students' Engagement in Extracurricular Activities." *Journal of Further and Higher Education* 1–14. doi:10.1080/0309877X.2020.1813263.
- Fabrigar, L. R., D. T. Wegener, R. C. MacCallum, and E. J. Strahan. 1999. "Evaluating the Use of Exploratory Factor Analysis in Psychological Research." *Psychological Methods* 4: 247–299. doi:10.1037/1082-989X.4.3.272.
- Field, A. 2009. *Discovering Statistics Using SPSS*. London: Sage Publishing.
- Gov.UK. 2016. "Experts Call for Employers and Universities to Do More to Address STEM Skill Shortages." Accessed 12 December 2017. <https://www.gov.uk/government/news/experts-call-for-employers-and-universities-to-do-more-to-address-stem-skills-shortages>
- Gov.UK. 2018. "Education Secretary Sets Vision for Boosting Mobility." Accessed 27 August 2020. <https://www.gov.uk/government/speeches/education-secretary-sets-vision-for-boosting-social-mobility>
- Harvey, A., L. Andrewartha, D. Edwards, J. Clarke, and K. Reyes. 2017. "Student Equity and Employability in Higher Education. Report for the Australian Government Department of Education and Training." Melbourne: Centre for Higher Education Equity and Diversity Research (CHEEDR). Accessed 8 September 2020. https://www.ncsehe.edu.au/wp-content/uploads/2018/06/73_LaTrobe_AndrewHarvey_Accessible_PDF.pdf
- Hendricks, K.S. 2016. "The Sources of Self-Efficacy: Educational Research and Implications for Music." *National Association for Music Education* 35 (1): 32–38.
- Higher Education Careers Service Unit. 2012. "Futuretrack." Accessed 20 April 2018. https://www.hecsu.ac.uk/assets/assets/documents/Futuretrack_Summary_2012_-_Extracurricular_activities.pdf
- Hillage, J., and E. Pollard. 1998. "Employability: Developing a Framework for Policy Analysis. Research Report RR85." London: Department for Education and Employment.
- Honicke, T., and J. Broadbent. 2016. "The Influence of Academic Self-efficacy on Academic Performance: A Systematic Review." *Educational Research Review* 17: 63–84. doi:10.1016/j.edurev.2015.11.002.
- Jackson, N. 2008. "Tackling the Wicked Problem of Creativity in Higher Education." In: *Background paper for a presentation at the ARC centre for the creative industries and innovation, international conference*. Brisbane: QLD.
- King, A.E., F.A.E. McQuarrie, and S.M. Brigham. 2020. "Exploring the Relationship between Student Success and Participation in Extracurricular Activities." *SCHOLE: A Journal of Leisure Studies and Recreation Education* 1–17. doi:10.1080/1937156X.2020.1760751.
- Lee, B., and F.W. Vondracek. 2014. "Teenage Goals and Self-efficacy Beliefs as Precursors of Adult Career and Family Outcomes." *Journal of Vocational Behavior* 85 (2): 228–237. doi:10.1016/J.JVB.2014.06.003.
- Lees, D. 2002. *Graduate Employability - Literature Review*. York: LTSN Generic Centre.
- Lent, R.W., and G. Hackett. 1987. "Career Self-Efficacy: Empirical Status and Future Directions." *Journal of Vocational Behaviour* 30: 347–382. doi:10.1016/0001-8791(87)90010-8.
- McQuaid, R.W., and C.D. Lindsay. 2005. "The Concept of Employability." *Urban Studies* 42 (2): 197–219. doi:10.1080/0042098042000316100.
- Minocha, S., D. Hristov, and M. Reynolds. 2017. "From Graduate Employability to Employment: Policy and Practice in UK Higher Education." *International Journal of Training and Development* 21 (3): 235–248. doi:10.1111/ijttd.12105.
- Muldoon, R. 2009. "Recognizing the Enhancement of Graduate Attributes and Employability through Part-time Work while at University." *Active Learning in Higher Education* 10 (3): 237–252. doi:10.1177/1469787409343189.
- Office for National Statistics. 2019. "The National Statistics Socio-economic Classification (NS-SEC)." Accessed 3 July 2020. <https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatisticsocioeconomicclassificationnssecrebasedonsoc2010>
- Ojonugwa, O.I., R. Hamzah, A.B.R. Bakar, and A.M. Rashid. 2015. "Evaluating Self-Efficacy Expected of Polytechnic Engineering Students as a Measure of Employability." *International Journal of Education & Literacy Studies* 3 (3): 24–30.
- Pinto, L.H., and D.C. Ramalheira. 2017. "Perceived Employability of Business Graduates: The Effect of Academic Performance and Extracurricular Activities." *Journal of Vocational Behavior* 99: 165–178. doi:10.1016/j.jvb.2017.01.005.

- Preston, C.C., and A.M. Colman. 2000. "Optimal Number of Response Categories in Rating Scales: Reliability, Validity, Discriminating Power, and Respondent Preferences." *Acta Psychologica* 104 (1): 1–15. doi:10.1016/S0001-6918(99)00050-5.
- Prospects. 2021. "Volunteering." Accessed 26 February 2021. https://www.prospects.ac.uk/jobs-and-work-experience/work-experience-and-internships/volunteering?utm_source=nus_web&utm_medium=partner&utm_campaign=jobs-and-work-experience
- Qenani, E., N. MacDougall, and C. Sexton. 2014. "An Empirical Study of Self-perceived Employability: Improving the Prospects for Student Employment Success in an Uncertain Environment." *Active Learning in Higher Education* 15 (3): 199–213. doi:10.1177/1469787414544875.
- Quality Assurance Agency. (n.d.) "Extracurricular Awards Stimulus Papers: AGCAS Perspective." Accessed 20 April 2018. <http://www.qaa.ac.uk/en/Publications/Documents/extracurricular-awards-AGCAS.pdf>
- Roulin, N., and A. Bangerter. 2013. "Students' Use of Extracurricular Activities for Positional Advantage in Competitive Job Markets." *Journal of Education and Work* 26 (1): 21–47. doi:10.1080/13639080.2011.623122.
- Russell Group. 2021. "Our Universities." Accessed 22 April 2021. <https://russellgroup.ac.uk/about/our-universities/>
- Shankland, R., C. Genolini, L.R. Franca, J-D. Guelfi, and S. Ionescu. 2010. "Student Adjustment to Higher Education: The Role of Alternative Educational Pathways in Coping with the Demands of Student Life." *Higher Education* 59 (3): 353–366. doi:10.1007/S10734-009-9252-7.
- Stevenson, J., and S. Clegg. 2011. "Possible Selves: Students Orientating Themselves Towards the Future for Extracurricular Activity." *British Educational Research Journal* 37 (2): 231–246. doi:10.1080/01411920903540672.
- Stuart, M., C. Lido, J. Morgan, and S. May. 2009. "Student Diversity, Extracurricular Activities and Perceptions of Graduate Outcomes." Accessed 1 July 2020. http://gala.gre.ac.uk/3232/1/HEA_project_report_2007_8.pdf
- Stuart, M., C. Lido, J. Morgan, L. Solomon, and S. May. 2011. "The Impact of Engagement with Extracurricular Activities on the Student Experience and Graduate Outcomes for Widening Participation Populations." *Active Learning in Higher Education* 12 (3): 203–215. doi:10.1177/1469787411415081.
- Tang, Y., and H.W. Tseng. 2013. "Distance Learners' Self-efficacy and Information Literacy Skills." *The Journal of Academic Librarianship* 39 (6): 517–521. doi:10.1016/j.acalib.2013.08.008.
- Thompson, L., G. Clark, M. Walker, and J. Whyatt. 2013. "'It's Just like an Extra String to Your Bow': Exploring Higher Education Students' Perceptions and Experiences of Extracurricular Activity and Employability." *Journal of Learning Development in Higher Education* 14 (2): 135–147. doi:10.1177/1469787413481129.
- Tieu, T.T., M. Pancer, M.W. Pratt, M. Wintre, S. Birnie-Lefcovitch, J. Polivy, and G. Adams. 2010. "Helping Out or Hanging Out: The Features of Involvement and How It Relates to University Adjustment." *Higher Education* 60 (3): 343–355. doi:10.1007/s10734-009-9303-0.
- Tobin, L. 2010. "Students Look to Extracurricular Activities to Give Them Employability." *The Guardian*. 20 April. Accessed 12 December 2017. <https://www.theguardian.com/education/2010/apr/20/student-employability-extracurricular-skills>
- University of Nottingham. 2017. "Careers and Employability Service." Accessed 12 December 2017. <https://www.nottingham.ac.uk/careers/students/work-experience/activities.aspx>
- University of Plymouth. 2017. "Extracurricular Activities and Employability." Accessed 12 December 2017. <https://www.plymouth.ac.uk/your-university/teaching-and-learning/employability-in-the-curriculum-and-beyond/extracurricular-activities>
- van Dinther, M., F. Dochy, and M. Segers. 2011. "Factors Affecting Students' Self-Efficacy in Higher Education." *Educational Research Review* 6 (2): 95–108. doi:10.1016/j.edurev.2010.10.003.
- Watson, R. 2011. "A Rationale for the Development of an Extracurricular Employability Award at A British University." *Research in Post-Compulsory Education* 16 (3): 371–384. doi:10.1080/13596748.2011.602248.
- Wilcox, P., S. Winn, and M. Fyfe-Gauld. 2005. "'It Was Nothing to Do with the University, It Was Just the People': The Role of Social Support in the First Year Experience in Higher Education." *Studies in Higher Education* 30 (6): 707–722. doi:10.1080/03075070500340036.
- Wood, J., S. Little, and L. Goldring. 2011. "The Confidence to Do Things that I Know Nothing about - Skills Development through Extracurricular Inquiry Activity." *Journal of Learning Development in Higher Education* 3: 2–21.
- Yorke, M. 2006. "Employability in Higher Education: What It Is - What It Is Not." *The Higher Education Academy*. Accessed 9 September 2020. https://www.ed.ac.uk/files/atoms/files/hea-learning-employability_series_one.pdf
- Zimmerman, B. J., A. Bandura, and M. Martinez-Pons. 1992. "Self-motivation for Academic Attainment: The Role of Self-efficacy Beliefs and Personal Goal Setting." *American Educational Research Journal* 29 (3): 663–676. doi:10.3102/00028312029003663.