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ARTICLE



The impact of engagement in sport on graduate employability: implications for higher education policy and practice

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ABSTRACT

This paper analyses the impact of engagement in sport on graduate employability using a triangulation of views from three key stakeholder groups. Primary research was conducted with 5838 graduates, 112 employers and 13 university senior executives as part of a mixed-methods approach. The research found that engagement in sport was viewed as a sound investment from the perspectives of all three groups, with examples highlighting how sport provided ‘added value’ beyond subject-specific qualifications. This finding was particularly prominent where graduates demonstrated experience of voluntary roles through the leadership and management of sport and could articulate how this had a positive impact on the development of additional employability attributes. We argue that there are important implications for higher education policy, sports policy, universities, employers and students. For students, employability can be enhanced through participation and volunteering in sport, which is shown to be a good investment in terms of both skill development and future earnings. For employers, when recruiting graduates, a history of sport participation (inclusive of voluntary experience) may be a good indicator of candidates with desirable traits for employment. For universities, meeting their customers’ demand for sport with sufficient supply through strategic investment is an important consideration of their offer.

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1. Introduction

Significant work has been undertaken in recent years to articulate the potential value and impact of engagement in sport to a whole range of policy priorities. For education, the focus has largely been on the relationship between sports participation and school-based educational performance (Gerber 1996, DeMoulin 2002, Booth *et al.* 2013). Examples from such research demonstrate that participation in sport can be positively linked to high achievement, notably higher productivity and developing good time-management skills.

There has also been some research finding a positive link between sport participation and earnings. For example, Eide and Ronan (2001) found that participation in varsity sports in the United States was associated with higher future earnings. However, the impact of taking part in sport on graduate employability has been very much under-researched. Despite those involved in sport in the higher education (HE) sector seemingly believing that engagement in sport can have a positive impact on a student’s employability, the evidence to date in this area has been largely anecdotal. For example, guides aimed at HE and careers advisory staff emphasise the importance of

encouraging participation in wider activities beyond a degree programme for developing components of employability. These activities include extracurricular activity (including sport and other activities), part-time employment and volunteering (Watts 2006, Pegg *et al.* 2012). Perhaps surprisingly, the advice given in these advisory documents is not based on empirical research evidencing the specific links between participation in these activities and employability.

This paper addresses three questions from the perspective of three key stakeholder groups with a vested interest in graduate employability, namely graduates (from a wide range of academic disciplines and institutions), graduate employers and senior executives of UK universities. The three questions, which are discussed subsequently in the context of current policies in HE, are:

- (1) Does engagement in sport impact positively on graduates' employment and longer term employability?
- (2) Do employers recognise the value of sport and the different levels of engagement?
- (3) What importance and value is placed on engagement with sport by UK universities?

The inclusion of the three key stakeholder groups in the primary research and the use of a mixed-methods approach enable the findings to be triangulated between graduates, employers and universities. The data used to produce the findings originate from research commissioned by British Universities and Colleges Sport (BUCS, 2013) to investigate the evidence of the impact of engagement in sport on graduate employability. Whilst the research predates some of the more recent policy documents, reference is made to them to position the research in a contemporary policy-relevant context.

2. Employability and policy context

The notion of 'employability' has received growing interest in the HE sector over the last decade, driven by four major factors. First, a changing economy, in particular the economic downturn; higher unemployment levels; erosion of job security; the changing nature of employment and the need to address these issues at a public policy level (Hillage and Pollard 1998, Clarke and Patrickson 2008). Second, the UK government's emphasis on the role of HE for improving the competitiveness of the UK economy through the 'skills agenda', as outlined in *Ambition 2020: World Class Skills and Jobs for the UK* (Spilsbury *et al.* 2010).

Third, the impact of the changes to the economy for graduates, in particular increased competition for graduate employment, with research showing that relatively large numbers of graduates are overeducated for their first jobs and not directly utilising the academic content of their degree (Dolton and Vignoles 2000, Green and Zhu 2010, Green 2013, Scurry and Blenkinsopp 2014). The Destination of Leavers from Higher Education Survey 2014/15 (2016) shows that for graduates in 2014/15, 72% were working either in the United Kingdom or overseas, and, of these, 71% were in roles classed as professional employment and 29% were in occupational groups classed as non-professional. The Destination of Leavers Longitudinal Survey 2008/09 (2013), which examined occupational status 3.5 years after graduation, found that occupations changed over this relatively short time, as did the proportion of leavers in further study. These findings suggest the need for a flexible workforce prepared for a lifetime of change and development. It appears increasingly to be the norm for individuals to be required to engage in re-training and personal development throughout their working lives.

Fourth, the rise in HE tuition fees, coupled with job insecurities and increased competition for graduate jobs, means that students are perhaps becoming more selective in their choice of courses and institutions. Simultaneously, there has been an enhanced focus on university league tables and customer satisfaction barometers such as the National Student Survey. A review conducted by the HEA for Higher Education Funding Council for England (HEFCE) (2011) examined the employability statements provided on the Unistats website by various higher education institutions (HEIs) and

conducted focus groups with prospective students. The students cited that several factors were important in their choice of institution, notably including what sort of jobs people get after their studies. When asked to rate the importance of 'employability' on a scale of 1–10, the response overall was 'about 8'. In addition, Purcell and Pitcher (1998) found that career progression (including salary) was categorised as a priority area from the perspective of students.

As a result of these changes, HEIs are now operating in an increasingly competitive environment. There is pressure on HEIs to provide education which encompasses employability practice (Fallows and Steven 2000). Improving the student experience and a greater focus on performance regarding graduate employability were key priorities in the 2011 White Paper which placed 'students at the heart of the system' (BIS 2011), and the more recent 2016 White Paper, which set out a range of reforms to HE, with competition, choice and student interests central to the aim of improving the overall quality and diversity of HE (BIS 2016).

As a consequence of the factors outlined above, employability appears to have become a concept at the forefront of academic debate and research (McQuaid and Lindsay 2002, Forrier and Sels 2003, Lowden *et al.* 2011). In 2012, a Teaching and Learning Summit on Employability, co-ordinated by the Higher Education Academy (HEA) and the National Coordinating Centre for Public Engagement, highlighted the lack of clarity in the HE sector around what employability means, a lack of a consistent approach to developing employability across HEIs and a lack of understanding of the skills that employers are looking for in graduates. A key recommendation of the summit was the production of a framework to assist HEIs in developing employability. As a result, in 2015, the HEA produced a framework which aims to support institutions in addressing the development of their employability provision (Cole and Tibby 2015). The framework is designed for anyone in HE who is involved with employability, from senior management to course tutors, and provides areas for discussion and support with the development of action plans for embedding employability. The guidance suggests that consideration is needed of the activities available at the institution which support students' personal development beyond the curriculum, including extra-curricular activities.

Increased pressure also appears to be placed on students themselves to ensure that they graduate with the employability skills that employers prefer them to possess, in order to be competitive in their search for employment (Ball 2003, Wickramasinghe and Perera 2010). In 2011, the Confederation of British Industry and the National Union of Students produced a joint report aimed at students, titled *Working Towards your Future – Making the Most of your Time in Higher Education* which highlighted the skills required by graduates to improve their employability (CBI/NUS 2011). Increasing proportions of graduates leave HE with a 1st or 2:1 (the traditional requirement for employment in a graduate job, HECSU 2012, p. 7). Therefore, 'added value', in the form of extracurricular experience, along with work experience outside academic studies, has become an increasingly important way that graduates are encouraged to differentiate themselves from others in their cohort (HECSU 2012, p. 7).

Sport is one area where increased investment and focus can be targeted as part of a drive to increase student satisfaction. The seven iterations of the Active People Survey since APS-4 (2009/10) outline that the majority of those in education take part in sport once a week (c. 53%). This means from both a supply and demand perspective, there is a strategic need for universities to address this area. Participation in sport by students also has a strategic importance for Sport England to maintain and increase adult participation and tackle issues around drop-off (APS-10Q2 shows that 55.8% of those aged 15–25 take part in at least one sport session a week, compared to 32.4% of adults aged 26 plus). As a result, in 2014, Sport England invested £11 million into the University Sport Activation Fund (USAF), supporting projects across 63 different HEIs, which were designed to increase participation by trialling new methods of encouraging students into sport, particularly those who were inactive, with the aim to create a sustainable habit for life.

The Government's Sport Strategy *Sporting Future – A New Strategy for an Active Nation* (2015), is based on the benefits that sport can bring to individuals and to society and sets out five outcomes

at the heart of what the government wishes to achieve through sport. These five outcomes are: (1) physical health, (2) mental well-being, (3) individual development, (4) social/community development and (5) economic development. Sport England's response to *Sporting Future*, entitled *Towards an Active Nation*, provides an overview of the strategy for investment between 2016 and 2021. Public funding will be directed to delivering these five outcomes and success will be measured against them. The strategy therefore goes beyond success as measured simply by the numbers of people participating in sport by focusing on the broader social outcomes that sport can deliver. Universities, therefore, have an important role to play in facilitating sporting activities that contribute to the Sport England outcomes.

The development of employability may potentially be linked to these outcome areas, in particular mental well-being, individual development and social/community development, through the development of a range of personal skills and attributes. However, the role of university sport in delivering additional experiences to students is under-researched. In addition, the volume of existing evidence in general around the contribution of sport in these areas is relatively low. *Sporting Future* describes that across all sports, there is a greater weight of evidence on the impact of sport on physical health and economic development, and much less evidence for the other three outcome areas. Similarly, the Chief Medical Officer's report *At Least Five a Week* (2004) showed that historically there are mixed levels of evidence available for physical activity generally, of which sport is a subset, and particularly for mental health, there is a lack of evidence in most areas.

There is therefore a strategic need to explore the link between sport, employability and policy in HE through empirical research, to identify the impact of engagement in sport on graduates' employment, and the importance and value placed on engagement in sport by UK universities. Evidencing this link has potential implications for both sports policy and HE policy and practice. The research outlined in this paper was based on the notion that employability is of increasing importance for three key groups of stakeholders in the HE process, namely students and graduates, graduate employers and universities in a broad sense.

3. Review of literature

The research began with a review of literature specifically relating to engagement in sport and graduate employability to determine what was already known and thereby to identify the gaps in research. The literature review was important in developing an understanding of the concept of employability which could subsequently be operationalised into valid research instruments.

3.1. What is employability?

Many authors describe employability by making a distinction between 'employment' and 'employability'. This distinction positions 'employment' as an outcome which can be measured, with the proportion of graduates obtaining jobs remaining a key performance indicator for universities. By contrast, the term 'employability' is seen to relate to a set of achievements and the learning of a wide range of skills, knowledge and attributes to support both securing and keeping a job. Employability therefore '...refers to a graduate's achievements and his/her potential to obtain a "graduate job", and should not be confused with the actual acquisition of a graduate job' (Yorke 2006, p. 2).

Acknowledging that employability appears to be most commonly used to refer to the potential to obtain and retain a job, a wide range of further definitions and explanations exist in the literature, which acknowledge that employability has evolved from simply being seen as the development of particular skills for employment, for example technical or subject-specific skills, to incorporating additional factors, including the development of values, behaviours, attitudes and competencies aimed at supporting career development, building the potential required for a longer term career. A widely accepted definition of employability is that of Yorke and Knight (2006, p. 3), who define it as

...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.

3.2. How do employers define employability?

There is a range of research with employers (e.g. Harvey *et al.* 1997, Harvey 1999, Yorke 2006, Fleming *et al.* 2008, Lowden *et al.* 2011) which demonstrates that a number of attributes are valued by employers that include a range of ‘softer’ skills such as behavioural characteristics, interpersonal and organisational skills (notably team working skills), communication skills, confidence, motivation, commitment and flexibility. For example, a study of more than 500,000 job advertisements by the company Adzuna (reported in Benedictus 2013) found that the top attributes required in advertisements were (1) organised, (2) communication skills, (3) motivated, (4) qualified, (5) flexible, (6) degree, (7) commitment, (8) passionate, (9) track record and (10) innovative. Two of these attributes, ‘qualified’ and a ‘degree’, relate to specific levels of educational attainment, whereas the other eight attributes emphasise the importance of ‘soft skills’ and personal qualities.

Dacre Pool and Sewell (2007) set out the essential components of employability as (1) degree subject knowledge, understanding and skills; (2) generic skills – developed across degree programmes, including analysis skills, time management, working with others, communication skills and working under pressure; (3) emotional intelligence – the capacity for recognising own feelings and those of others, and to build personal relationships; (4) career development learning; (5) experience – work and life and (6) reflection and evaluation.

Dacre Pool and Sewell argue that if students have opportunities to access and develop all of these components, and also to reflect and evaluate on their development of these components, they will gain in self-confidence, self-efficacy and self-esteem, which are links to employability. Through their model of employability, Dacre Pool and Sewell demonstrate their view that whilst degree subject knowledge, understanding and skills are extremely important, these alone are unlikely to secure an appropriate job in which graduates can be satisfied and successful.

3.3. Technical skills and soft skills

The literature that has been described so far groups the skills identified as encompassing employability into two broad categories; ‘technical skills’ and ‘soft skills’. ‘Technical skills’ are where employability is defined in terms of the possession of technical, job-related skills and assumes that employability is a characteristic of an individual’s set of identifiable and measurable skills, such as academic or vocational qualifications, technical or job-specific knowledge and work experience. This reflects the UK government’s ‘skills agenda’; however, this agenda outlines how skill shortages, skill gaps and skill underutilization are viewed as key issues confronting businesses. The proposed solution emphasises the development of a trained workforce. Within the government’s five outcome areas (UK Government 2015), technical skills may be most closely related to the outcome area of ‘individual development’ through the development of individual skills and qualifications.

‘Soft skills’ is the second category, which emphasises ‘softer’ personal qualities, attitudes and attributes. Soft skills may include behavioural characteristics and elements of an individual’s personality, values and attitudes. Examples might include team working, reliability, time management, problem solving, motivation and communication skills. These skills may be linked more closely to the government’s outcome areas of mental well-being and social/community development, encompassing more subjective aspects of an individual’s personality. Rather than simply skills for employment, employability may instead therefore be described as a ‘(multifaceted) characteristic of the individual’ (Yorke 2006, p. 8).

Sporting Future (2015) identifies the need for research and evidence around the impact of sport on the five priority outcome areas. Our literature review suggests that the concept of employability

may encompass a range of characteristics that fit into these outcome areas. However, as shown in the following section, whilst there is an abundance of literature to be found about employability in general, there is a clear lack of material which explores explicitly the role of sport in helping to develop employability.

3.4. What evidence is there around sport and employability?

Within the literature, there has been little focus on the influence of sport on the development of employability components or on the transition to the work force. The review found some research into the career pathways and development of employability specifically amongst graduates of sport-based degree programmes (Minten 2010, Minten and Forsyth 2014). These studies found that sports graduates gain employment in a wide range of professions, both within and outside of sport, and call for HE strategies to support sports students to recognise the range of career opportunities available to them. Opportunities for work experience in particular were found to be beneficial for sports graduates to clarify career aims and to develop valuable attributes relevant to employability.

'Futuretrack', a longitudinal survey funded by the Higher Education Careers Services Unit (HECSU 2012), tracked a cohort of students in order to explore the relationship between HE, employability and career planning. It found that participation in extracurricular activity at university (encompassing both sport and other activities and societies) had a positive impact upon employment. In particular, graduates taking part in extracurricular activity were less likely to be unemployed and instead were more likely to be employed in graduate jobs with comparatively higher salaries, as well as being more likely to be positive about their post-graduation careers.

Similarly, research conducted by Tchiboza (2007), using a sample of 119 graduates in the United Kingdom, found that those students who had participated in extracurricular activities whilst at university (including a range of social, leisure and sports activities) achieved a higher occupational status than those who had not. Students who did not participate in any extracurricular activity were three times more likely to begin their careers as office employees rather than as managers. Participation in extracurricular activity was viewed by employers and graduates as a determinant of productivity, showing an ability to manage time between different interests.

Research by Coffee and Lavalley (2014) assessed the impact on employability of the 'Winning Students' scholarship programme in Scotland, which offers university scholarships to talented student athletes. They concluded that being a student athlete developed key employability skills and led to a higher chance of graduate employment and higher median salaries for those in full-time employment post-university. Key skills that graduates felt that they had developed through their involvement in sport included networking, drawing upon available support, organisational skills, time-management skills, goal-setting skills, being disciplined, being driven (motivation), becoming a 'competitive person' in all aspects of life, communication and social skills with peers and mentors, being more adept at group-work, and handling pressure. Coffee and Lavalley argue that policymakers should consider sports scholars as a model to enhance employability among all students.

3.5. Development of research questions and framework

The discussion so far demonstrates that interest in promoting graduate employability has increased in recent years, and it has been acknowledged that employability is a broad concept encompassing a wide range of characteristics and competencies valued by employers. It is therefore not surprising that HEIs have been urged to focus on the development of employability. Our review of the literature examining the impact of sport on graduate employability shows that there is a lack of evidence available in this area, although the limited literature available was broadly positive regarding this impact. The findings of both the HECSU (2012) research, and of Tchiboza (2007),

provide useful and interesting insights, with each demonstrating a positive link between participation in extracurricular activities and employment status. These are, however, small-scale projects which focus on wider extracurricular activity, without a primary focus on sport.

The research by Coffee and Lavallee (2014), which does relate specifically to sports participation, focuses on talented athletes who participate in sport competitively and does not include the much larger numbers of students who participate in sport and physical activity recreationally. The reference to extracurricular activities in many HEI advisory documents demonstrates that extracurricular activity is generally valued and seen as enhancing employability, but the value of sport has not been investigated explicitly. Similarly, the evidence suggests that employers value a wide range of characteristics in graduates, encompassing a combination of both technical and soft skills, yet the source of these, and the potential for these to be developed through sport, has not been clearly identified.

The primary research presented in the following sections therefore contributes towards filling these gaps in current knowledge. The literature review provided a basis for devising our research instruments. The previous research in this area (such as Harvey *et al.* 1997, Harvey 1999, Yorke 2006, Fleming *et al.* 2008, Lowden *et al.* 2011), as well as the components for employability devised by Dacre Pool and Sewell (2007), allowed the derivation of a framework to test through our empirical research, with 11 attributes that we had most commonly found in the literature split into two clear groups; technical skills (3 attributes) and personal skills (8 attributes). First, 'technical skills': (1) good numeracy skills; (2) good written communication; (3) use of appropriate IT applications; second, 'soft skills': (1) good time management; (2) organising, planning and coordinating; (3) problem solving; (4) ability to be creative, innovative; (5) ability to work as part of a team; (6) ability to lead/manage others; (7) good understanding of customer handling; (8) making a positive contribution. All 11 attributes were those which had repeatedly been described as important in the literature, and, for example, in research such as that by Adzuna (Benedictus 2013), which examined the top attributes that employers asked for in job advertisements.

4. Research methods

This research is explicitly empirical in nature and originates from a piece of contract research. Whilst we were not explicitly testing assumptions or devising a theory (e.g. as discussed in detail by Grix 2002), the derivation of our research instruments was based on previous research and was informed by theory. A mixed-methods approach was adopted which included primary research, both quantitative and qualitative, and secondary analysis of Sport England's Active People (APS) 6 data set ($n = 155,853$). The primary research was undertaken with three key groups of stakeholders, namely graduates ($n = 5838$), employers ($n = 112$) and university senior executives ($n = 13$). Table 1 outlines how the primary research triangulated views from the key stakeholder groups.

In the following sections, we outline in detail the methods used in order to address the research questions. A combination of methods was agreed, in order to provide breadth (surveys), depth (interviews) and a test of reasonableness (secondary analysis). We wanted to understand the value, importance and impact of sport for individuals, and this therefore required a subjective understanding of thoughts, ideas and thus the acquisition of qualitative data through interviews was

Table 1. Triangulation of key stakeholders.

Group	Method/Sample
Graduates	Secondary analysis of Active People Survey 6 Online survey with 5838 graduates
Employers	Interviews with 112 employers through an online survey, telephone interviews and through graduate recruitment fairs
Universities	Phone interviews with 13 senior university executives

viewed as the most appropriate technique. However, we also wished to gain quantitative and numerical data in terms of salary and employment status from a widely dispersed population which was best tackled with a survey. The use of a survey also allowed us to achieve large sample sizes which in turn enabled the analysis of significant clusters of respondent types. The survey also included open-ended questions to acquire qualitative data from the graduates. This data helped to attach meaning to some of the quantitative questions on the survey and facilitated comparison with the results from the employers and university senior executives.

4.1. Graduate survey

A link to an online survey was distributed by 24 university alumni teams, via either a direct communication to their alumni network, or as an indirect communication as part of an alumni newsletter. The survey generated responses from 5838 graduates, representing over 120 institutions at undergraduate level. The responses included all 'mission groups' (e.g. Russell Group, 1994 Group, University Alliance, Million+). The sample also included graduates from a wide range of degree subjects (only 1.6% of the sample was from sport-related studies). The survey was structured so as to enable three clusters of respondents to be identified, those who did no extracurricular activity, those who took part in other activities excluding sport and those who engaged in sport. Overall, 69% of the sample had taken part in sport and physical activity of some sort during their time at university. This included 24% who just used the gym, 14% who participated in sport and had a voluntary or managerial role, and 31% who participated in sport but had no additional role/responsibility. The second largest subgroup did not engage in any form of sport or physical activity at university (31% of the sample). The survey asked questions based on the themes identified in the literature review which developed the framework of skill types (three technical skills and eight soft skills), and the associated development of these skills. Income, career earnings and employment status were also investigated, as well as graduates' perceptions on the impact of sport on their development of employability skills.

4.2. Graduate employer survey and interviews

A short online survey was developed for graduate employers and we worked with the Association of Graduate Recruiters to distribute the link to its 750 members. The University of Leeds and the University of Manchester provided access to companies involved in their Graduate Recruitment Fairs, and Sheffield Hallam University distributed the link to its employer network. A total of 112 companies contributed via 25 face-to-face interviews at the graduate fairs and 87 online completions. To maximise engagement, employers were asked just two short open questions.

- (1) What are your views on the benefits of engaging in sport to graduate employability?
- (2) Are there any specific skills, experience, attributes that are developed through engagement in sport that you feel impact positively on employability?

4.3. Interviews with vice chancellors and senior executives of universities

Telephone interviews were conducted with 13 vice chancellors or a nominated deputy. The purpose of the interview was to investigate the importance and value placed on engagement in sport by different institutions and to explore views on the contribution of sport to the employability agenda. The interviews covered the following issues:

- (1) each university's strategic commitment to sport and perceptions of its importance;
- (2) the importance of sport to the student experience and
- (3) views on the contribution of student engagement in sport to employability.

4.4. Analysis

The secondary analysis of the APS data set was carried out using the Chi-square Automatic Interaction Detector function within SPSS to measure the relationships between variables. Specifically, we explored the relationships between educational attainment, sport participation, volunteering and household income (as a proxy for earnings). This data helped to inform our line of enquiry in the primary research and also provided a test of reasonableness for the results obtained.

For the purposes of the graduate survey analysis, we categorised engagement in sport into two clusters: those who did not engage in any sport or physical activity at university and those who did engage in sport or physical activity at university. For those who did engage, additional clusters were created to account for the nature of their engagement, categorised as (1) use of the gym only; (2) participation in sport at any level, both in training or coached sessions and in competitions; and (3) participation in sport (as above), as well as undertaking volunteering or managing roles in sport.

The literature in the field of employability made a clear distinction between seemingly 'harder', 'technical' skills for employment and skills described being 'soft' or 'personal', i.e. those skills described as being key employability attributes in previous research with employers, as discussed in the literature review. The development of the two broad categories enabled clear distinctions to be made as to if, how and where sport had a role to play in the development of employability traits. Graduates were asked to rate each attribute based on a scoring system of 0 = no contribution, 1 = minor contribution, 2 = moderate contribution, 3 = major contribution, and the results are presented in the next section. Analysis of variance (ANOVA) was used to examine the statistical significance of the self-assessment of skill development.

All interviews were recorded, fully transcribed and subjected to a themed content analysis, involving the reading and rereading of the transcripts, identification of patterns in the data and developing codes in which to classify and organise the key themes.

5. Results

The research findings in this section are presented from the perspective of each of the different stakeholder groups (graduates, employers and universities).

5.1. The graduate perspective

The first discussion point is from the secondary analysis of APS, which was used prior to the primary research to test the hypothesis (based on literature) that sport has a positive association with employability.

The secondary analysis of APS-6 ($n = 155,853$) found that there was a positive relationship between current participation in sport and current household income. Graduates who participated in sport had a higher annual household income than graduates who did no sport, a premium of £6344 per annum. For graduates who take part in sport and undertake volunteering activity related to sport, the difference in annual household income is higher still, with a further premium of £2704 per annum. The relationships between graduate qualifications, participation in sport, volunteering and household average income from APS-6 are illustrated in [Figure 1](#).

[Figure 1](#) also shows that educational level is positively linked to higher household income, as on average graduates have a higher annual household income than non-graduates (a premium of £12,036 per annum). Furthermore, the relationship between sport and income described earlier is replicated amongst non-graduates, whereby those non-graduates who participate in sport have a higher annual household income than those who do not, and for those non-graduates who undertake volunteering activity related to sport, the difference in annual household income is higher still. Therefore, whilst the analysis shows that educational level has an impact upon income levels, it cannot fully explain income differences, which are shown to also be linked to participation

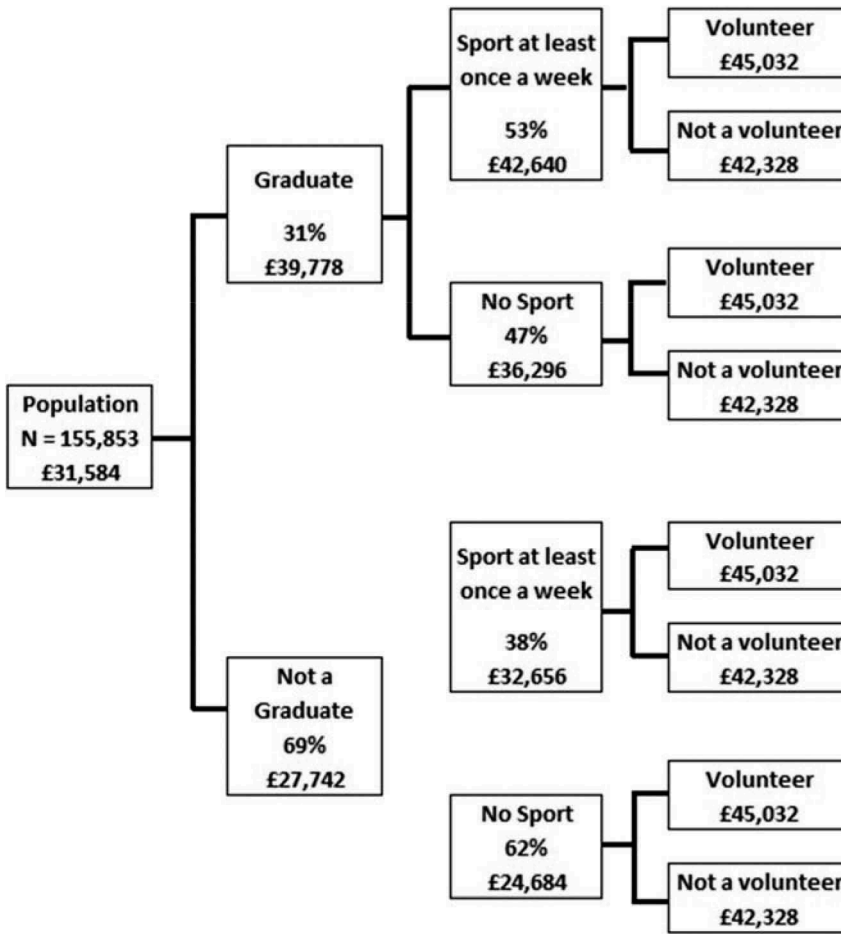


Figure 1. Secondary analysis of active people – the impact of education, participation in sport and volunteering on household income.

in sport, particularly if it also involves volunteering. The findings from this secondary analysis of the APS-6 dataset suggested that the relationships between income and sport participation should be investigated further through primary research with the focus being on participation whilst at university.

The graduate survey found a similar relationship to the findings in APS-6, in that sports participation by graduates whilst they were at university (rather than currently) was associated with a premium on incomes. The average salary was £29,536, and those graduates who did not take part in sport at university had the lowest current personal salary (at an average of £26,728 per annum). Those who took part in sport at university had a current personal salary greater than those who attended the gym only (£32,552 compared with £28,080). These findings reflect Eide and Ronan’s (2001) research in the USA which demonstrated a positive link between participation in varsity sports and future earnings, and the Futuretrack research (HECSU 2012) which showed that graduates who had taken part in extracurricular activities were more likely to be employed in graduate jobs with comparatively higher salaries than non-participants. However, in our primary research, those graduates who participated in sport and had a voluntary role in sport at university showed no sign of an additional premium in salary (£31,720) as was the case in the APS-6 data. When career earnings are considered, the average increases in earnings were greatest for those graduates who engaged in sport at university, whereas those graduates who did no sport had the

lowest increase in career earnings. This is a potential demonstration of the 'value of the investment' for those engaging in sport. Although engagement in sport is not the sole driver of enhanced income, there appears to be a positive relationship between engagement in sport, both at university and afterwards, and earnings.

The survey asked graduates to rate the 11 employability skills identified as our framework for investigation. This questioning was in relation to the extent graduates believed that their participation in extracurricular activities had contributed to the development of these skills. The averages for each attribute are presented in Table 2.

Of the 11 skill areas, the 3 which were scored highest by graduates as having been developed through sport were all soft skills, including ability to work as part of a team, ability to lead/manage others, and organising, planning and coordinating. Whilst none of the attributes scored an average above '2 = moderate contribution' for the sample as a whole, four of the soft skills scored in excess of 2 for those graduates who took part in volunteering and management of university sport. These were organising, planning and coordinating, ability to work as part of a team, ability to lead/manage others, and making a positive contribution. Graduates who had been involved in volunteering and management of sport on average scored higher for all 11 skill areas than any of the other clusters.

ANOVA was used to test the statistical significance of the results. The ANOVA found that graduates involved in sport including volunteering and management were significantly more likely than the other three clusters to report that their experiences had contributed to their development of all 11 employability skills. Table 3 highlights the comparisons between the four sub-categories for the technical skills and Table 4 shows the scores for personal skills. For those graduates involved in sport excluding volunteering and management, the ANOVA results showed that they were significantly more likely than those who attended the gym only or did no sport at all to report that their participation had contributed to their development of three skills: good time management, ability to work as part of a team and ability to lead and manage others. For the other skill areas, there is some variation amongst the three clusters, indicating that whilst volunteering and management of sport have significant impacts across all employability skills, for those not involved in volunteering or management the impact of sport is less significant on the development of these skill areas.

Some 25% of the overall sample had encountered a period of unemployment at some point in their career, although those who had engaged in sport at university were less likely to have

Table 2. Employability skills by type of engagement in sport at university.

Attribute	Overall (out of 3)	No sport	Gym only	Sport excluding volunteering/ management	Sport including volunteering/ management
Technical skills: mean = .88					
Good numeracy skills	.71	.68	.62	.70	.90
Clear written communication	1.18	1.24	1.06	1.09	1.47
Using appropriate IT applications	.73	.72	.70	.67	.92
Soft skills: mean = 1.57					
Good time management	1.48	1.31	1.26	1.50	1.91
Organising, planning and coordinating	1.71	1.62	1.44	1.70	2.24
Good at solving problems	1.44	1.42	1.26	1.36	1.91
Ability to be creative, innovative	1.48	1.54	1.34	1.40	1.74
Ability to work as part of a team	1.98	1.77	1.64	2.09	2.46
Ability to lead/manage others	1.76	1.55	1.35	1.84	2.38
Good understanding of customer handling	1.12	1.11	.95	1.05	1.51
Making a positive contribution	1.59	1.52	1.34	1.60	2.01


Table 3. ANOVA – technical skills.

Attribute	Category	N	Descriptive statistics				Test of homogeneity of variances				ANOVA	Post hoc tests			
			Mean	95% Confidence interval for mean		Levene statistic	Sig.	df		F/ Welch			Sig.	Test	Interpretation
				Lower bound	Upper bound			Between groups	Within groups						
Good numeracy skills	No sport	791	.6751	.6084	.7418	.849	.467	3	4000	12.915	.000	Sport 2 > all other categories ($p < .001$); no sport = gym only = sport 1 (.261 < $p < .966$)			
	Gym only	1028	.6187	.5609	.6765										
Clear written communication	Sport 1	1459	.6971	.6474	.7467							Sport 2 > all other categories ($p < .001$), no sport > gym only ($p = .008$) and sport 1 ($p = .029$)			
	Sport 2	726	.8994	.8279	.9710	1.161	.323	3	4218	24.187	.000				
Using appropriate IT applications	No sport	871	1.2377	1.1617	1.3136	.397	.755	3	3852	10.713	.000	Sport 2 > all other categories ($p < .003$) No sport = gym only = sport 1 (.639 < $p < .972$)			
	Gym only	1036	.7008	.6407	.7609										
	Sport 1	1506	1.0936	1.0364	1.1508										
	Sport 2	757	1.4676	1.3896	1.5457										

Notes: Sport 1 = Excluding volunteering/management; Sport 2 = including volunteering/management. For each attribute, the '>' sign in the final column of the table indicates significantly higher scores by certain groups relative to others on that attribute at the .05 level. The '=' sign indicates no significant differences between groups at the .05 level.



Table 4. ANOVA – personal skills.

Attribute	Category	Descriptive statistics				Test of homogeneity of variances			ANOVA			Post hoc tests	
		N	Mean	95% Confidence interval for mean		Levene statistic	Sig.	Between groups	Within groups	F	/Welch Sig.		Test
				Lower bound	Upper bound								
Good time management	No sport	904	1.3142	1.2454	1.3829	16.468	.000	3	2201.946	74.845	.000	Tamhane (unequal variances)	Sport 2 > all other categories ($p < .001$); sport 1 > no sport and gym only ($p < .001$); no sport = gym only ($p = .853$)
	Gym only	1136	1.2623	1.2000	1.3247								
	Sport 1	1628	1.5006	1.4502	1.5510								
Organising, planning and coordinating	Sport 2	801	1.9076	1.8402	1.9750								Sport 2 > all other categories ($p < .001$); sport 1 and no sport > gym only ($p < .001$); no sport = sport 1 ($p = .467$)
	No sport	920	1.6239	1.5531	1.6948	54.721	.000	3	2251.496	119.836	.000	Tamhane (unequal variances)	
	Gym only	1142	1.4378	1.3724	1.5033								
Good at solving problems	Sport 1	1637	1.6970	1.6464	1.7476								Sport 2 > all other categories ($p < .001$); no sport and sport 1 > gym only ($p < .005$); no sport = sport 1 ($p = .624$)
	Sport 2	808	2.2389	2.1790	2.2987								
	No sport	903	1.4241	1.3515	1.4968	30.560	.000	3	2195.347	73.318	.000	Tamhane (unequal variances)	
Ability to be creative, innovative	Gym only	1133	1.2560	1.1907	1.3212								Sport 2 > all other categories ($p < .001$); no sport > gym only and sport 1 ($p < .02$); gym only = sport 1 ($p = .627$)
	Sport 1	1603	1.3581	1.3048	1.4114								
	Sport 2	790	1.9114	1.8429	1.9798								
Ability to work as part of a team	No sport	911	1.5401	1.4701	1.6100								Sport 2 > all other categories ($p < .001$); sport 1 > no sport and gym only ($p < .001$); no sport > gym only and sport 1 ($p < .02$); gym only = sport 1 ($p = .627$)
	Gym only	1138	1.3427	1.2794	1.4060	13.527	.000	3	2192.451	28.819	.000	Tamhane (unequal variances)	
	Sport 1	1605	1.4025	1.3507	1.4542								
Ability to lead/manage others	Sport 2	785	1.7439	1.6754	1.8125								Sport 2 > all other categories ($p < .001$); sport 1 > no sport and gym only ($p < .001$); no sport > gym only ($p = .048$)
	No sport	938	1.7697	1.7019	1.8375	74.940	.000	3	2269.386	147.065	.000	Tamhane (unequal variances)	
	Gym only	1167	1.6444	1.5808	1.7080								
Good understanding of customer handling	Sport 1	1703	2.0869	2.0427	2.1311								Sport 2 > all other categories ($p < .001$); sport 1 > no sport and gym only ($p < .001$); no sport > gym only ($p = .001$)
	Sport 2	816	2.4559	2.4017	2.5100	72.755	.000	3	2247.295	205.036	.000	Tamhane (unequal variances)	
	No sport	907	1.5502	1.4763	1.6240								
Good contribution to the organisation	Gym only	1149	1.3525	1.2873	1.4176								Sport 2 > all other categories ($p < .001$); no sport > gym only ($p = .004$); no sport = sport 1 ($p = .682$)
	Sport 1	1685	1.8427	1.7937	1.8918	1.946	.120	3	4308	47.569	.000	Scheffe (equal variances)	
	Sport 2	814	2.3796	2.3222	2.4370								
Making a positive contribution to the organisation	No sport	870	1.1115	1.0395	1.1835								Sport 2 > all other categories ($p < .001$); no sport and sport 1 > gym only ($p < .001$); no sport = sport 1 ($p = .453$)
	Gym only	1101	.9473	.8852	1.0094	43.038	.000	3	71.130	2186.577	.000	Tamhane (unequal variances)	
	Sport 1	1576	1.0501	.9987	1.1016								

experienced unemployment than those who had done no sport at university (24% in comparison with 27%). This finding reflects the results of the HECSU (2012) research which showed that graduates taking part in extracurricular activity were less likely to be unemployed. In particular, our survey also found that those who had been involved in voluntary and management roles in their sport were less likely to have been unemployed than all other groups, at 21%.

The graduate survey also generated a range of comments, which outline the value placed upon sport, and particularly the volunteering and management of sport, as enabling graduates to develop employability skills.

I felt that being a team captain in a university sport provided me with an opportunity to develop my leadership qualities and encouraged me to improve my ability to approach work in a more proactive and organised fashion. This has also given me situations and experiences to draw upon in job applications and interviews.

One graduate summarised the high value that he placed upon sport in the following quotation:

I got a 2:1 (just missed a first!), in retrospect would I have swapped my experience at University for a first class degree and done less on the sports side? I probably wouldn't.

5.2. The employer perspective

Graduate employers ($n = 112$) were positive about the benefits of employing graduates who engaged in sport whilst at university and the skills and strengths that this could bring them in applying for jobs at their organisation. Overall, 107 (96%) of the graduate employers reported examples about how engagement in sport by employees had made a positive influence on their organisation. Many employers also reported that they actively looked for evidence of engagement in sport on graduates' job applications. Academic qualifications and subject-specific skills were clearly deemed necessary prerequisites for job applicants; however, soft skills were also considered important attributes by many employers and were actively sought. Some of the examples alluded to how, more than ever, employers in the current market are looking for additional skills to those demonstrated through academic ability alone as competition in the job market has increased.

Every applicant who applies to us has experienced University, so you might want to think about finding examples outside your University or academic experience if possible to really set you apart.

Employers also highlighted how specific skills could be demonstrated through engagement in sport, such as communication (linked to client liaison), good general health and well-being, team working, respect for others and competitive personalities (around meeting targets). It was suggested that employers viewed the presence on a CV of extracurricular activities as an important inclusion with one employer citing that 'anybody that hasn't done anything (additional) at all isn't worth looking at'.

For me, if a candidate has engaged in sport it helps add credibility to the strengths/competencies that I am measuring during a recruitment process. To use a baking analogy, it is the icing on the cake rather than the actual sponge and filling.

A wide range of positive attributes was listed by employers as being developed through sport and a full list of the attributes that were most frequently cited by employers is provided in [Table 5](#).

Some employers commented on the health benefits of participation in sport. Participation was seen as indicative of graduates being healthy and thus more productive in the workplace, with less chance of them taking time off due to sickness. Also, keeping fit and healthy was seen as indicative of a sense of personal responsibility, demonstrating self-discipline, commitment to self-improvement, and the ability to set and achieve personal goals, all of which were qualities valued within the workplace.

It was a prominent theme from employers that demonstrating experience through a leading role in a sports society would carry weight as a relevant non-academic achievement. Many

Table 5. Employers' perspectives on employability attributes developed through sport.

Team working	Leadership
Motivation	Organisational skills
Communication	Flexibility
Networking/Social skills	Good health and mental well-being
Confidence	Self-discipline
Time management	Determination
Competitiveness	Ambition
Resilience	Problem-solving skills
Personal drive	Planning and strategic skills
Commitment	Passion
Able to take instruction	Energy
Self-awareness	Ability to multitask
Respect for others	Initiative
Sense of fun	Self-respect
Tenacity	Pride
Breadth of interests	

employers highlighted that they particularly look for candidates who have not only participated in sport, but who have also had voluntary positions of responsibility within sport. Leadership skills in particular were viewed as important skills developed through the volunteering and management of sport.

Also the leadership element, looking for the sports captains who want to take responsibility, want to take leadership roles – for us it says a lot about that person wanting to elevate themselves to that position – they are the people we want in our business.

The interviews with employers echoed the findings of the online survey with graduates, in which graduates who had taken on voluntary or managerial roles within their sport were particularly positive about the ways in which this had developed their employability skills. Employers also emphasised that it would not be enough for graduates to simply specify in a job application that they had been involved in sport. Rather, what employers are looking for is how individuals can demonstrate that they have the right skills, attributes and qualities that can be transferred to the workplace. Involvement in sport would not, in and of itself, give a candidate an advantage in a selection process but would be advantageous if individuals could articulate how their involvement was relevant, particularly from a position of responsibility. Examples included where involvement in playing, coaching and organising sport provided knowledge, skills and confidence to enable graduates to sell themselves to employers at interview; or where positions of responsibility demonstrated leadership skills and the ability to balance responsibilities whilst studying for a degree; and how balancing a sports committee position with a full-time degree enabled the development of good organisation and time-management skills.

There are benefits in engaging in sport, provided students can identify what those benefits actually are and use them appropriately. Too many applications list various sports activities but don't reference the skills developed or identify key achievements.

This highlights the importance for graduates to be able to understand the transferable skills that sport can provide in order to translate them into effective job applications and performance when employed.

It depends on how the individual approaches participating in sport. I would really encourage individuals to understand how they can increase their employability through sport, as my experience is that many students don't understand this, and miss this opportunity.

5.3. *The university perspective*

The university perspective had a more prominent focus on sport from a position of supply, rather than just demand. The interviews with senior university executives indicated that sport provision was seen as being of high importance. However, this importance appeared to be less about the benefits for graduate employability and more focused on the benefits for the university in attracting potential students, boosting the academic performance of existing students and enhancing the student experience. Sport had strategic importance in all institutions interviewed and was seen as a driver for a positive student experience, an important determinant of choice in student recruitment, and in some cases, it was fundamental to a university's market position. All senior executives reported that they had a strategic commitment to sport; however, this manifested itself in different ways. For some universities, there was an explicit high level sport strategy focusing on facility development, participation and performance driven at executive level. For others, sport was implicit in the overall corporate plan or there was a second tier strategy or departmental level plan. Investment in new facilities was often used as an example to demonstrate strategic commitment to sport.

We are very clear that the investment we have made in our facilities is an attraction for our students. This is a journey we are on, with focussed sports, promoting wellbeing – it is part of an integrated package and clearly sport is important to us.

It was clear that facility investment was seen as an attraction to recruit students, with focused provision of sports alongside the promotion of well-being strategies, and being aware that moving to university was a key transition point in terms of physical activity drop-off. Executives also made the connection between sporting pursuits (and other extracurricular activities) and academic performance, especially in volunteering roles, as part of the aim to produce 'well-rounded' graduates.

...participating in sport is part of that process of all-round development, and people that come here will say to us the provision of those sporting activities is an important determinate of their choice in coming to this university.

We see our number one priority at this university as student experience, second to none. Part of that, we see the extra-curricular part as really important, giving the students the opportunity to participate in sport, engage in physical activity, link to wellbeing all of which aid studying, which is central to what we are trying to achieve.

Some universities were using sport projects specifically to drive their employability offer with examples of universities delivering sport services and using this to engage students through work experience, volunteering and coaching opportunities. One university reported that it had taken additional responsibility for the management of community facilities with its local authority, and students were delivering community sport programmes.

There was a general consensus that sport could develop components of employability; however, there was an acceptance that 'hard evidence' around the link between sport and employability was tenuous, but that it was vital to validate such claims.

They (employers) are aware that sportsmen and women are people that they want to recruit and that they are likely to have developed some practical organisation and communication skills while they are at university which complements their academic education. The employer probably recognises it more than the university.

There was a sense that evidence relating to the impact of sport on graduate employability was much needed, especially to inform internal audiences related to resource allocation and prioritisation.

6. Conclusions

This research set out to explore the impact of engagement in sport on graduate employability from the perspective of three key groups of stakeholders, graduates, employers and university senior

executives. The research aimed to contribute to filling a gap in evidence; whereby whilst there is a considerable amount of literature regarding employability in general, as well as a growing body of evidence describing the range of skills required by employers, there is relatively little literature looking specifically at the role of sport in developing these employability skills. As the number of UK graduates increases each year, evidence suggests that students are graduating in an increasingly competitive environment and now need to do more than pass a degree to get their first job and to sustain and accelerate their employment. Previous HE documents and policy have highlighted a need for an understanding of the skills that employers are looking for in graduates, and a framework to understand how these skills can be developed (Cole and Tibby 2015). Mostly, anecdotal evidence has suggested that employability components may be developed through co-curricular and extracurricular activities, which include sport. Current sports policy highlights the potential for sports participation to impact upon a wide range of social outcomes (UK Government 2015; Sport England, 2016b), including the perhaps more obvious area of physical health but in addition to this, the wider outcomes of mental well-being, individual development and social and community development, areas which appear to encompass a range of aspects of employability (including both 'technical' and 'soft skills'). In this policy context, we identified that there was clearly a strategic need to evidence the potential links between sports participation and employability, specifically to identify the impact of sport on graduate employment and employability. Evidencing this link has important implications for both sports and HE policy and practice. The findings complement previous research on employability, particularly that which explored the links between employability and graduates having participated in extracurricular activity whilst at university (Tchibozo 2007, HECSU 2012). From the findings, it can be concluded that engagement in sport at university is associated with a positive impact on employability and is seen as a sound investment from the perspective of graduates, graduate employers and universities. We draw three main conclusions from our data.

First, graduates, employers and universities believe that sport is a contributory factor to enhanced employability skills and wider benefits in the workplace such as income and reduced unemployment. For students, employability can be enhanced through participation and volunteering in sport, which is shown to be a good investment in terms of skill development and future earnings. Graduates reported that their participation in sport at university provided them with 'added value' alongside their degree qualifications, enabling them to develop key employability skills and secure employment after graduating. The triangulation of results from the different stakeholder groups showed that the skills that graduates described that they had gained from sport were the same skills that employers said that they were looking for in employees. The employers were positive about the benefits of sport and proposed numerous examples of skills and qualities that sport could assist in developing, particularly at a voluntary leadership or management level within sports clubs and teams. Employers were looking for both technical and soft skills and believed that soft skills in particular could be developed through participation in sport. Many employers actively looked for mention of sport within job applications, notably how applicants demonstrated being able to apply their experiences from sport to the workplace. For employers, when recruiting graduates, a history of sport participation (inclusive of voluntary experience) may be a good indicator of candidates with desirable traits for employment.

The evidence indicates that engagement in sport at university (and probably thereafter) is associated with a good career return on investment of £4264 and £5616 per annum compared with the salaries of those whose activity is confined to going to the gym or those who do no sport at all. It should be noted, however, that whilst voluntary and management roles appear to correlate strongly with development of employability skills and likelihood of employment, this did not necessarily translate into an additional income premium from our online survey as it did from APS (Figure 1). There is, however, no assumption that sport alone causes these outcomes, rather sport is associated with them.

Senior university executives were highly positive about the role of sport in their institutions and there was evidence of strategic commitment to sport in all universities consulted and in some cases significant investment. The focus of senior executives in interviews tended, however, to be on the benefits of sport for universities, in terms of improving market position and academic performance. When questioned about employability, senior executives also reported that they did consider engagement in sport to have a significant positive impact on student employability, although the strategic investment in this area was more difficult to quantify.

Second, the nature of the level of engagement in sport has a significant impact on any likely benefits that might occur in terms of how participation in sport produces any benefits, e.g. gym only versus sport plus volunteering/management. It is not simply participation in sport, as such, where the reported benefits originate from, but rather taking on positions of responsibility which increases the depth and relevance of skills including teamwork, communication, resilience and leadership. Involvement in voluntary or managerial roles had significant impacts on the development of such employability skills and these graduates were less likely to have been unemployed and more likely to give positive responses to questions about the impact of sport on employability. What is also crucially important for graduates is being able to interpret the skills that they have developed through sport effectively in job applications in order to demonstrate that they meet the requirements of the position to which they are applying. In addition, there is merit in taking on leadership or other voluntary positions of responsibility within sport in order to give graduates further competitive advantage in the job market.

Third, it is quite likely that benefits can be derived from other extracurricular activities such as music, the arts and participation in other societies whilst at university. However, the potential difference with sport is that taking part has a personal and physiological benefit which is different to that which might be derived from other pursuits but which do not involve physical activity. Future research on the benefits of other extracurricular activities would be a useful addition to the body of work, to understand if this is unique to sport.

In the absence of previous research exploring the specific link between sport participation and graduate employability, the findings of this research are a useful addition to the employability literature. In particular, this research adds significant weight to the numerous HE frameworks and policy documents (e.g. Watts 2006, Pegg *et al.* 2012), which emphasise the importance of engaging in extracurricular activity alongside a degree programme for developing components of employability, yet which are currently not based on empirical evidence demonstrating these links. For policymakers in HE, and in sport and physical activity, clearer understanding of how extracurricular pursuits can benefit individuals and organisations is important. The policy changes around university tuition fees, the student offer from universities and the role of universities in producing high-quality graduates remain at the forefront of future policy development. Consequently, there are links to the key priorities for government departments concerned with education, business and sport, as the production of high-quality, well-rounded graduates crosses over multiple policy areas.

As outlined earlier, the APS data show that the majority of students take part in sport. For universities, this means that there is a clear need to meet these demands from a customer service perspective, which is incumbent on senior staff to ensure that resources are allocated to enable participation. This enabling activity is not just focussed on facilities and facility development, but the approach to sporting pursuits, for example timetabling on Wednesdays for fixtures, investment into club development programmes and underpinning work by student unions. The Sport England-funded USAF project, aiming to increase participation amongst inactive students, is another significant step in the right direction. In addition, there is a need for the sport offer to not just include opportunities for participation but also opportunities for students to be able to engage in volunteering and management activity. There is a need to ensure that the value of engagement in sport and of engagement in sports leadership activities (as recognised by graduate employers) is

communicated and promoted in universities to all who have a role in helping graduates prepare for employment.

This research concludes that sport can contribute positively upon graduate employability. It is a sound investment from the perspective of graduates, employers and universities. Now is the time for all partners and stakeholders to realise the potential of sport and to act accordingly.

Disclosure statement

No potential conflict of interest was reported by the authors.

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