



Review of UK Transnational Education in Hong Kong (Special Administrative Region of China): University of Northumbria at Newcastle and HKU SPACE

May 2018

Executive summary

The University of Northumbria at Newcastle runs programmes in Hong Kong with HKU SPACE, the University of Hong Kong's School of Professional and Continuing Education, as well as other institutions. HKU SPACE was originally established in 1956, and the University's partnership with HKU SPACE began in 2010. Two sport-related top-up degree programmes were launched in 2010 and 2014. One top-up programme is being replaced in 2018-19 and a related MSc is planned. The two top-up degree programmes were accredited by the Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ) in March 2015. This review was conducted together with the HKCAAVQ which established a panel to accredit a new BSc (Hons) Sport Coaching programme and to re-accredit the BSc (Hons) Sport Management programme. Both are top-up programmes of 180 credits with recognition of prior learning in either specified HKU SPACE 'feeder' Higher Diploma programmes. Two QAA reviewers were part of the HKCAAVQ panel. While specifically reviewing the programmes' academic standards and quality against Hong Kong requirements, the QAA review considered that the HKCAAVQ review was equivalent to scrutiny against the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (FHEQ) and the UK Quality Code for Higher Education (Quality Code) in all major respects.

Provision awarded by the University and delivered through a collaborative partner is subject to the same standard monitoring and review processes applied to all University programmes. It is also subject to HKU SPACE's quality assurance systems and procedures. These arrangements are effective in assuring academic standards and the quality of learning opportunities although they involved some duplication of effort in meeting each institution's requirements as well as those of HKCAAVQ.

Strengths of the provision include strong links with the sports industry in Hong Kong including longer duration placement opportunities than in the UK. There are committed teams and good communication on both sides of the partnership. This has led to effective contextualisation of learning in a validated programme. Good support services are provided to students including high quality library facilities. Support for English language and academic skills is provided but students did not always take advantage of this support. Areas

for improvement include the management of the University's documentation for programmes run in more than one location.

Overall, the University's programmes are well managed and students supported in the achievement of their academic award. The University's partnership with HKU SPACE is effective, with potential for further enhancement.

Introduction

1 The University's international strategy includes the development of long-term high quality partnerships. The range of educational partnership models offered and supported by the University currently covers 17 countries/regions and 33 partners. Hong Kong is seen as a strategic location.

2 In terms of the University's international strategy, programmes in Hong Kong are 'franchised', which are programmes designed and approved by the University leading to an award or credit conferred by the University 'delivered by, at, or in partnership with another education provider'. Franchising is one of a range of educational partnership mechanisms that also include validation, joint degrees and articulation.

3 Two of the University's programmes are run in Hong Kong by HKU SPACE, the University of Hong Kong's School of Professional and Continuing Education (HKU SPACE), which was established as the Department of Extra Mural Studies (DEMS) of The University of Hong Kong (HKU) in 1956-57, as the first university continuing education unit in the region. It was renamed as SPACE in 1992 and became a non-profit-making company limited by guarantee in 1999.

4 HKU SPACE offers a range of sub-degree programmes through the HKU SPACE Community College and the HKU SPACE Po Leung Kuk Stanley Ho Community College. These include Higher Diplomas and Associate Degrees which typically involve two years' full-time post-school study (or the equivalent if studied part-time). As there are limited opportunities for graduates of these programmes to transfer to HKU or other local universities, HKU SPACE offers a range of non-local degree programmes, many of which are awarded by UK universities. Support services for non-local degree programmes are also provided by the International College within HKU SPACE.

5 HKU SPACE identified the University of Northumbria at Newcastle as a suitable partner in the area of sport. The University's partnership with HKU SPACE began in 2010. A BSc (Hons) Sport Management programme (SM) was launched in 2010 and a BA (Hons) Sport Development with Coaching programme (SDC) was launched in 2014. The two programmes were accredited by HKCAAVQ in March 2015 for a period of four years starting from September 2015. The BA (Hons) Sport Development with Coaching is being replaced by a new BSc (Hons) Sport Coaching programme (SC). The University and HKU SPACE also intend to run an MSc International Sport Management programme. The University's partnership with HKU SPACE is its only one in the area of sport.

6 The University has further provision in Hong Kong delivered in partnership with the Hong Kong Polytechnic University and the Vocational Training Council. These programmes are in the areas of business and management, tourism and hospitality, and food science. They did not form part of the review.

7 As well as analysis of extensive documentary evidence provided by the University, the review consisted of two related activities.

- An accreditation by the HKCAAVQ of a proposed new programme, BSc (Hons) Sport Coaching (SC) and a re-accreditation of an existing programme, BSc (Hons) Sport Management (SM). This was conducted over four days by a panel which included a Chair and a member, who were also QAA TNE reviewers. The role of the panel was to decide (i) whether the SC programme met its stated objectives and Hong Kong Qualifications Framework (HKQF) standards, hence should be accredited in Hong Kong, and (ii) whether the SM programme continued to meet its stated objectives and Hong Kong Qualifications Framework (HKQF) standards, hence should continue to be accredited in Hong Kong.
- A further meeting which was held with staff of the University as well as senior representatives of SPACE on issues not already covered during the HKCAAVQ accreditation, focusing on the institutional level and programmes not covered by the HKCAAVQ panel. A QAA staff member and an observer from HKCAAVQ were present at this meeting.

8 The QAA review concluded that the HKCAAVQ could be relied upon in relation to the academic standards and quality of a UK degree programme in Hong Kong given the equivalence between: (i) Hong Kong requirements and the UK Quality Code in all major respects, and (ii) the shared process of peer review supported by the quality agency.

9 The University's adoption of the 'Programme Frameworks for Northumbria Awards' (PFNA) led to a review of all of its programmes including those in Hong Kong. This took place in 2016. As a result of this, the programme learning outcomes for SM were revised and the SDM programme discontinued. The revised SM programme is being introduced in 2019 and the new SC programme will replace SDM at the same time, subject to finalisation of HKCAAVQ accreditation.

Developing, agreeing and managing arrangements for setting up and operating the link

10 The University has clear processes for the approval and management of international partnerships. The University is responsible for the quality and standards of all its academic awards. The Academic Portfolio Group approves or reapproves a partnership in principle (informed by due diligence checks and a business case) while the University Approvals Panel considers the academic strength of a proposal. Academic Board grants final approval.

11 In parallel, HKU SPACE operates its own processes for developing, agreeing and managing arrangements with UK and other non-local universities. For example, an HKU SPACE Academic Committee, which is composed of HKU SPACE and University academic staff, external members of relevant fields and student representatives, is set up to oversee programme quality and standards.

12 At the time of the review, the University and HKU SPACE were revising their contract to reflect the changes in programmes from 2018-19. The previous contract in force until the end of 2017-18 covered relevant areas for a validation partnership. There was a range of evidence of a close collaborative relationship between the University and HKU SPACE, which was also evident in meetings. The University conducts at least three visits annually and there is regular contact between both academic and support staff of the two institutions. The committed teams from the University and HKU SPACE is a **positive feature** in operating the partnership.

13 Current student numbers are considerably below the maximum numbers targeted by the University, and in one case below the minimum level specified in the current contract. The University and HKU SPACE stated that they had mutually agreed that the programmes

had the potential to increase numbers and were putting in place plans to boost recruitment. Both parties were prepared to take a long-term view and indicated that the new contract would include minimum numbers that were lower than the current contract to reflect this agreement.

14 Arrangements between the University and HKU SPACE include operating both institutions' quality management arrangements, as well as those associated with HKCAAVQ. For example, programmes are subject to the University's monitoring and review processes, as well as those in HKU SPACE and reporting to HKCAAVQ. These processes were undertaken regularly including consideration of external examiner reports and student feedback. A Programme Evaluation Document, which includes a statistical comparison of the performance of the programme to that of the corresponding programme being offered in the UK, is prepared by the University's Programme Leader. Within HKU SPACE an Annual Programme Monitoring Report is prepared by the HKU SPACE Programme Leader, including information on the operations of the programmes, students' feedback and a critical analysis of the operations of the programmes.

15 As a result, there is duplication of activity and preparation of similar documents for different audiences. Given that the University and HKU SPACE both have multiple relationships with other partners, staff from both institutions felt that it was difficult to simplify these arrangements without undermining the consistency of internal processes.

Quality assurance

Academic standards

16 In relation to programmes offered in Hong Kong, the University first approves the programme internally, then applies for registration in Hong Kong, and finally applies for programme accreditation from HKCAAVQ. The programmes in Hong Kong lead to the same award as in the UK with the same learning outcomes and syllabus, though a specific top-up programme is not offered in the UK. The top-up programmes are all 180 credits (typical in Hong Kong) rather than 120 credits (typical in the UK).

17 As franchised programmes, the programme learning outcomes, syllabus and module specifications are essentially the same as in the UK. As noted below, both specific aspects of programme content and assessment are contextualised to Hong Kong while maintaining identical learning outcomes and external examining arrangements.

18 To obtain accreditation in Hong Kong, the University submitted programme-level applications for HKCAAVQ accreditation through HKU SPACE in a standard format together with detailed information in a number of appendices. The range and depth of information on the programme was comparable to that used by internal validation panels in many UK higher education institutions, for example programme and module specifications and information on staff and other resources. The main application document was structured to provide an overview of the partnership followed by sections based on the relevant areas of the Hong Kong standards. For a reaccreditation, information was also provided on the follow-up on previous recommendations and any substantive changes made since the last accreditation exercise.

19 The programme-level applications for HKCAAVQ accreditation also contained Hong Kong specific information and analysis, in particular:

- analysis of academic standards in relation to the Hong Kong Qualifications Framework (HKQF)

- mapping of 'feeder' Hong Kong Higher Diplomas to the syllabus of the programme in order to assess recognition of prior learning on entry to a top-up programme
- financial projections and financial viability of the programme
- market analysis and employment opportunities for graduates
- staffing and other resources in Hong Kong.

20 As well as the University's internal programme approval process, the HKCAAVQ provides further external assurance of the academic standards of the programmes from a local panel with international participation. This provides the University with substantial externality in programme approval related to Hong Kong as well as potential feedback to the UK programme. While specifically reviewing the programme's academic standards against the HKQF, the QAA review considered that this was equivalent to scrutiny against the FHEQ in all major respects.

21 The panel scrutinised the academic standards of the two programmes in depth. In particular it reviewed information provided on:

- tables showing the contribution of Programme Intended Learning Outcomes (PILOs) to Programme Objectives (POs)
- tables showing the contribution of the modules to the PILOs
- tables showing the mapping of the PILOs to the Generic Level Descriptors (GLDs) of the HKQF at level 5
- programme specifications.

22 The HKCAAVQ panel concluded that the programmes meet Hong Kong requirements, in particular those associated with level 5 of the HKQF. The QAA review concluded that the programmes also meet the academic standards associated with level 6 of the FHEQ. It was noted that the PILOs and structure of the SM programme had changed as a result of the University's PFNA review. These changes were seen as enhancements to focus the programme more closely on the University's target graduate characteristics.

23 Programme and module specifications of the SM and SC programmes were scrutinised. The SM programme proposed a replacement of one module by another. Justifications for the changes were provided as well as minutes showing that the proposed changes were approved by relevant committees in both the University and HKU SPACE, such as the University Faculty Student Learning & Experience Committee and HKU SPACE Academic Committee. This demonstrated appropriate use of the processes for assurance of academic standards in programme modification.

24 The HKCAAVQ panel paid particular attention to academic standards in admissions to ensure that students entering the programme had sufficient recognised prior learning to be able to study successfully. Its scrutiny included:

- the mapping of pre-designated feeder programme(s) against the earlier stages of a programme
- processes for mapping other Higher Diploma or Associate Degree programmes against the earlier stages of a programme to identify whether recognition of prior learning was appropriate.

25 The mapping of feeder programmes was generally of a high standard and demonstrated their suitability as entry points to a top-up degree. If changes are identified in feeder programmes, the University and HKU SPACE indicated that the relevant mappings would be updated and reviewed. The University is ultimately responsible for approval of such mappings.

26 For non-feeder programmes taken by applicants, a similar approach to mapping is used, though in a responsive way based on applications. However, inconsistency was found in such mappings. For example, the Mapping Template for an Advanced Diploma (AD) for the SC programme neither mentioned the module titles nor indicated how much module content is covered in order to justify a conclusion to accept this AD qualification. This leads to the **recommendation** that the University further develops processes for the mapping of non-feeder programmes in admissions.

27 Applicants who are graduates of programmes taught in English are normally regarded as demonstrating the required English proficiency. In other cases, an International English Language Testing System 6.0 score is required.

28 External examiner reports confirmed that the academic standards of the programme meet UK threshold standards and are equivalent to those of the UK programme. Action had been taken in response to issues identified by external examiners. Student performance had improved though, as noted below, some issues remained.

29 The programmes are subject to the University's monitoring and review processes, as well as those in HKU SPACE. These were undertaken regularly, including consideration of external examiner reports and student feedback. A Programme Evaluation Document, which includes a statistical comparison of the performance of the programme to that of the corresponding programme being offered in the UK, is prepared by the University's Programme Leader. Within HKU SPACE an Annual Programme Monitoring Report is prepared by the HKU SPACE Programme Leader, including information on the programme, students' feedback and a critical analysis of the operation of the programme.

Assessment

30 Assessment details of each module are given in the Module Information. Various assessment methods are used, including presentations, projects, essays and reports. The Operational Manual states that all assessments are set by the University in consultation with HKU SPACE Module Tutors. In practice, assessments are drafted by Hong Kong staff, jointly agreed and formally approved by the University. Assessments are approved annually by the Departmental Assessment Panel, and verified by external examiners who are appointed, and report to, the University.

31 Marking of assessments is first undertaken by HKU SPACE Module Tutors, and second marking undertaken by the HKU SPACE Internal Moderator on a sample basis. The usual sample size is determined according to University guidelines as the larger of six or the square root of the number of students taking the module. The samples include the full range of marks including good, moderate and poor performances.

32 After the first marking and moderation has taken place, the sample scripts are sent to the University. The UK Module Leader scrutinises each assessment by monitoring samples across HKU SPACE and the UK. The University then forwards the moderated sample to the external examiner for final scrutiny and comments.

33 The arrangements for assessment are considered to be sound. The HKCAAVQ panel scrutinised a selection of marked assessments and was satisfied with the consistent application of academic standards and assessment criteria.

Quality of learning opportunities

34 As well as the University's internal programme approval process, the HKCAAVQ provides further external assurance of the quality of learning opportunities in the

programmes from a local panel with international participation. While specifically reviewing the programme's student experience and outcomes against Hong Kong expectations and requirements, the QAA review considered that this was essentially equivalent to scrutiny against the Quality Code in all major respects.

35 To meet local students' learning needs, HKU SPACE contextualises modules of the two programmes, through the use of local examples, guest speakers and demonstration sessions by local coaching professionals as well as site visits. Students and graduates in particular appreciated guest speaker sessions from Hong Kong sport professionals. Teaching staff also felt that the content and assessment had been appropriately adjusted to meet local needs. The University is ultimately responsible for assuring the quality of programme contextualisation, which is discussed between University and HKU SPACE module leaders. The review team found the approach to programme design and the use of local staffing enabling students to apply relevant theory to the practice of sport a **positive feature**.

36 The two programmes employ a mix of teaching and learning activities including lectures, seminars, practical sessions, workshops and placements. The class contact hours are substantially lower than the norms in the Hong Kong Qualification Framework's approach to academic credit. As a result the HKCAAVQ panel paid special attention to the way in which students are expected to learn independently. The module documentation and meetings with staff and students confirmed that such learning activity is guided by teaching staff to help students learn independently. As a result, the style of learning opportunities is effective in achieving programme learning outcomes.

37 From 2018-19, the number of contact hours and independent learning hours in Hong Kong programmes will be the same as in the UK programmes, except for one placement module. In the SM programme, this implied a reduction in contact hours as previous additional tutorials were being removed. While some students are in favour of additional contact hours, others are not. A recommendation of the HKCAAVQ panel was that attention should be paid to monitoring the effectiveness of this approach to contact time.

38 Based on stakeholders' feedback and local needs, Hong Kong students are required to take a 160-hour placement while UK students are only required to take 40 hours. Stakeholders were in favour of this approach to placements. However it was not fully reflected in programme documentation (see below).

39 During the site visit, the University stated that it proposed to increase scheduled contact delivery hours due to a decision to teach every week in the full 12-week semester. As a result, the Hong Kong programme planned to extend the teaching activities by two to three hours per module. A summary of scheduled, independent and placement hours for each module was provided as well as approval documents by relevant committees, such as the University Faculty Education Committee, HKU SPACE College Board and Academic Committee. Such a change indicated a challenge for partnership arrangements where a change driven by UK decisions needs to be implemented to maintain consistency in a franchised programme. The proposed change has the potential to further enhance students' learning experience. The review team noted that module specifications and other information had not yet been updated.

40 The above issues with respect to documentation of teaching and learning hours in Hong Kong contribute to the **recommendation** that the University review systems and processes for the creation, approval, maintenance and storage of definitive programme documentation.

41 Teaching staff combine HKU SPACE full-time staff and part-time adjunct faculty. They are required to have relevant teaching experience and a master's degree or, in

exceptional circumstances, a professional qualification in a related discipline. Dissertation supervisors should possess at least a master's degree with a dissertation element and have relevant supervision experience. These requirements are in line with the University's appointment criteria. All teaching staff must be approved by the University's Faculty Education Committee. Review of staff CVs indicated that these criteria were being implemented. In line with these principles, the University also stated that sufficient prospective staff for the MSc programme had doctorates.

42 University staff conduct around 11 hours of teaching per programme per year. On these visits, they also conduct staff development and meet with students. Students, graduates and teaching staff expressed the view that it would be desirable to have more opportunity for face-to-face exchange with University teaching staff. Expansion of staff and student mobility in both directions would contribute to this goal, alongside planned development of technology-enabled links such as recordings of lectures and guest speakers in the UK.

43 As noted above, external examiner reports considered that issues remained with the English level of some students and aspects of academic writing. Staff reported that students were not taking full advantage of the learning support provided by the International College. While some analysis has been done, a more integrated view of the effectiveness of this assistance could be taken. This leads to the **recommendation** that the University should strengthen the monitoring of the effectiveness of student support strategies in English language and academic writing.

44 The HKCAAVQ panel paid attention to two areas which are not normally part of QAA reviews:

- the financial viability of the programmes, with confidential financial information provided only to the Chair and HKCAAVQ officers
- visits to facilities used by the programmes including classroom and library resources.

45 Facilities are sufficient for programme delivery. While two virtual learning environments were being used (from the University and HKU SPACE), their respective roles are clear. Library resources combined those of the University of Hong Kong, one of the best university libraries in Asia, with the electronic resources of the University. As a result, the review team considered that library resources are a **positive feature** of the provision.

46 Information on student destinations showed that students are generally finding employment in the sports industry in Hong Kong with others using the knowledge and transferable skills in other sectors. Employers expressed their satisfaction with graduates as well as with placement students. In assessing the maximum number of students permitted to join the programme, there was some concern with the potential volume of jobs in the sports industry for graduates without prior experience, especially for those without high level sporting achievement. However, there was evidence of growing employment opportunities in Hong Kong sport and that the transferable skills of the students made them employable in other sectors.

47 The SC programme is intended to be accredited by the Hong Kong Coaching Committee (HKCC), a joint committee of the Sports Federation and Olympic Committee of Hong Kong and the Hong Kong Sports Institute, for the 'Coach Accreditation Programme Level 3 Sport-General Theory Coach'. This was in progress at the time of the review.

48 Student Staff Programme Committee (SSPC) meetings are held at least once per semester in Hong Kong to collect students' feedback, review the operation of programmes,

and review actions taken. The meetings are chaired by the HKU SPACE Programme Leader. In addition, a Learning Experience Survey provides systematic feedback.

49 Meetings with employers and students indicated that there were close links between the University's Hong Kong programmes and the sports industry in Hong Kong. Many teaching faculty are actively engaged in the sports industry and related activities. This leads to the conclusion that the linkage of the programmes with the sports industry in Hong Kong is a **positive feature** of the provision.

50 Employers indicated willingness to increase involvement with the programmes on a collective rather than purely individual basis. The employer meeting included enhancement ideas regarding the matching of students and employers for the placement module. The HKCAAVQ review recommended that the University further enhance the employer links of the programmes by developing mechanisms for collective employer input, for example an advisory board.

Information on higher education provision

51 Marketing materials are made available in both English and Chinese. Those in English are approved by the University. Those in Chinese are checked by HKU SPACE, which has well-established processes for the management of information. No issues were found in Chinese materials. However, there is a risk that if the University and its programmes were misrepresented, the University's processes would not identify this issue.

52 In examining programme documentation, it became clear that two different Chinese words were used for Sport when it is the same in English. The HKCAAVQ panel also noted that a character was used in the SC programme name which appeared to suggest the programme was more academically orientated. While the programme team provided justification for their proposals, stakeholders had diverse views and there is no universally accepted usage. HKCAAVQ recommended that the University and HKU SPACE review the Chinese terms to be used to describe the programmes. From the viewpoint of the University's management of information on higher education provision, it is important that it has internal processes to oversee the translation of programme names and other important programme information into local language.

53 These issues contribute to the **recommendation** that the University reviews the consistency of Chinese translation in programme names and puts in place more robust processes for the checking and approval of Chinese language marketing materials.

54 The University is responsible for maintaining definitive programme documentation. HKU SPACE is involved in the process to update the information used in Hong Kong. While the information is generally fit for purpose and accurate, some inconsistent and inaccurate information was found in key quality assurance documents that are used by different stakeholders, such as students and teaching staff.

55 The programme specification for Hong Kong programmes comprises the UK programme specification plus a Hong Kong specific delivery supplement. Specifically, it was found that UK-specific content that did not apply to Hong Kong was part of the programme specification for Hong Kong. For example: the SC programme specification states that the programmes 'are delivered by an experienced team of research active and practitioner based academics'. After reviewing the CVs of teaching staff in Hong Kong, it was found that such a statement is inaccurate as there was only a small number of academics with research experience and publications on the teaching team. The senior management

explained that the statement was made in the context of the UK programme, rather than the Hong Kong programme.

56 Inconsistency was also found in module specifications. The placement hours in one module were inaccurately provided as the revised module specification states that the same 40 hours are required for both UK and Hong Kong programmes, whereas this is a 160-hour placement as documented in the relevant HKU SPACE form. Documentation of some teaching hours was inconsistent. Committee names had not been updated in the Operations Manual.

57 This leads to the **recommendation** that the University review systems and processes for the creation, approval, maintenance and storage of definitive programme documentation where programmes are delivered in multiple locations.

Conclusion

The University's partnership with HKU SPACE is effective, with potential for further enhancement. Overall, the University's programmes are well managed and students are effectively supported in the achievement of their academic award. Students benefit from close links with the sports industry.

While specifically reviewing the programme's academic standards and quality against Hong Kong requirements, the QAA review considered that the HKCAAVQ review was equivalent to scrutiny against the FHEQ and Quality Code in all major respects.

Positive features

The following positive features are identified:

- the committed teams from the University and HKU SPACE operating the partnership (paragraph 12)
- the programme design and local staffing that enables students to apply relevant theory to the practice of sport (paragraph 35)
- the quality of library resources available through the University and HKU SPACE (paragraph 45)
- the linkage of the programmes with the sports industry in Hong Kong (paragraph 49).

Recommendations

The University of Northumbria at Newcastle is recommended to take the following action:

- further develop processes for the mapping of non-feeder programmes in admissions (paragraph 26)
- review systems and processes for the creation, approval, maintenance and storage of definitive programme documentation where programmes are delivered in multiple locations (paragraphs 40 and 57)
- strengthen the monitoring of the effectiveness of student support strategies in English language and academic writing (paragraph 43)
- review the consistency of Chinese translation in programme names and put in place more robust processes for the checking and approval of Chinese language marketing materials (paragraph 53).

University of Northumbria at Newcastle's response to the review report

The University welcomes QAA's supportive report and would like to thank the review team for the constructive and engaging way in which it conducted the review visit. The dialogue opportunities this visit offered provided Northumbria with a further opportunity to reflect on practices and processes as well as drive further enhancements.

As a partnership between institutions, we are also grateful to our partner colleagues and HKCAAVQ for the hard work and commitment to providing the best possible experience for Hong Kong students.

Northumbria is committed to enhancement of the quality of its provision and processes and will be addressing recommendations made. The University is also very pleased to note and welcomes the positive features identified by the Panel.

QAA2179 - July 18

© The Quality Assurance Agency for Higher Education 2018
Southgate House, Southgate Street, Gloucester GL1 1UB
Registered charity numbers 1062746 and SC037786

Tel 01452 557 000
Web www.qaa.ac.uk