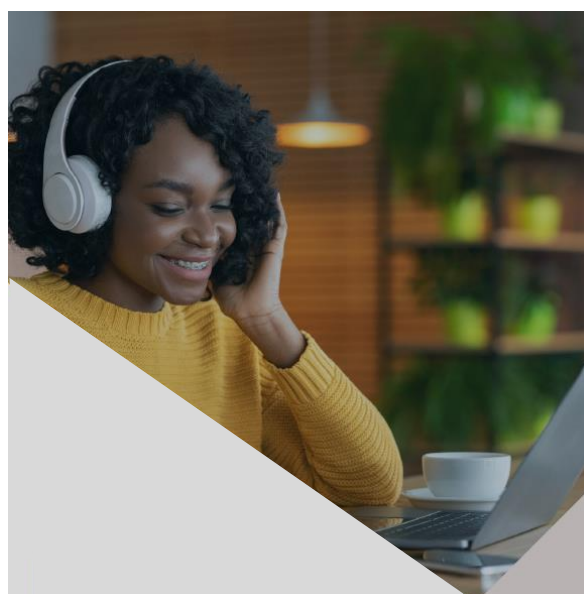




Digital Skills Bootcamps

A review of the Lancashire Bootcamps

October 2021



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Appendix A – Consultees

Headline Findings

- **Successful delivery to date:** Providers and employers involved with the Bootcamp programme in Lancashire have been broadly happy with the way it has been delivered, although the Covid pandemic presented a number of logistical challenges and impacted on employment opportunities for those completing Bootcamps during 2020 and early 2021.
- **Designed to meet local needs:** The flexibilities within the Bootcamp model meant that the content of the Bootcamps could be designed to meet the specific needs of Lancashire employers and that content could be adapted as circumstances changed or in response to learner needs. It is important that this local dimension – which builds better relationships between employers, learners and training providers – is retained as the Bootcamp model moves from pilot to mainstream provision.
- **Filling gaps in existing provision:** The Bootcamps complement existing education and training provision which is more focused on the development of knowledge, and allows learners to focus specifically on acquiring and learning to apply the skills they will need in defined digital roles.
- **Raising awareness and understanding of the Bootcamp offer:** Awareness and understanding of the Bootcamp model is growing amongst learners and employers but is limited given their relatively recent introduction. To maximise the benefits of the approach, learners, employers and providers need to understand what the Bootcamps offer (recognising that they vary considerably in terms of digital skills focus, level, target learners and relevance to digital sub-sectors and employers). Entry requirements, progression routes and fit with other digital skills provision through Sector Based Work Academies, further education and higher education need to be communicated in an easily understood format (such as a matrix).
- **Developing a coherent Bootcamp programme for Lancashire:** Greater co-ordination between Bootcamps operating in Lancashire would ensure that learners are matched to the Bootcamp which best meets their interests and existing skillsets, and reduce competition between Bootcamps for learners. It could also increase job entry rates by ensuring employers are able to access graduates from across the Bootcamps, rather than only the one with which they are specifically engaged. This coordination is best achieved through local partnership working and is challenging in an environment where Bootcamp provision is procured nationally. The shift to national procurement has involved limited partnership working with local areas. As a result, local oversight and direction of the Bootcamp programme has been reduced. This makes ensuring coherence both more important and more challenging.
- **Broader support for learners and employers:** Whilst Bootcamps have been successful in developing technical skills amongst people moving into Lancashire's digital workforce, this on its own is not sufficient to tackle digital skills needs. Learners also need to develop the confidence and job ready skills which will enable them to successfully make the transition into digital roles. Employers also need to be supported (particularly where their small digital teams make it difficult to provide the mentoring and support which new digital recruits need to succeed) to recruit and embed learners from Bootcamps and create the range of digital roles which appeal to Bootcamp learners (for example, more flexible roles rather than

full-time positions). Some providers have successfully established peer support networks to provide learners with a supportive community post-Bootcamp.

- **Raising the visibility of digital careers in Lancashire:** Alongside further delivery of digital skills Bootcamps, ongoing work is required to increase the visibility of the digital sector and digital roles in Lancashire, demonstrating to residents the range of opportunities available to them locally and encouraging people to see digital careers as an option for them.

Background

This short report summarises feedback on the Lancashire Digital Skills Bootcamps, gathered from participants at four virtual focus groups, held online during week commencing the 6th September and week commencing the 13th September 2021. It also includes reflections on the policy implications of the feedback obtained. Three focus groups were held with providers and employers who had been directly involved in the delivery of the digital skills bootcamps. A fourth group included wider digital stakeholders (for example, employers, higher education and further education representatives) who had not been directly involved but have a shared interest in supporting the development of digital skills in Lancashire. A full list of participants is provided in Appendix A. Topic guides were used to structure the discussions:

Provider / employer focus group	Policy / stakeholder group
<ul style="list-style-type: none"> • Initial engagement and design of the Bootcamp programme • Experience of delivery • Bootcamp outcomes – learners, employers, providers • Effectiveness in meeting Lancashire’s digital skills priorities • Key changes and recommendations 	<ul style="list-style-type: none"> • Maximising employer involvement • Improving the learner experience • Tackling provider issues • Priorities for the next phase of Bootcamps

In parallel with the consultation work in Lancashire, the Department for Education (DfE) are running a consultation on the National Skills Fund. Information gathered through the focus groups will inform Lancashire Digital Skills Partnership’s and Lancashire Skills & Employment Hub’s responses to the DfE consultation. Findings relevant to the DfE consultation questions are indicated throughout the report.

The Bootcamp Model (Q29)

The consultees were all supportive of the Bootcamp model. Particular elements which were of value included:

- **Delivering industry-specific training** and focusing learning specifically on skills needs identified by employers. For the employers most closely involved in the delivery of Bootcamps, the ability to design a training course which was bespoke to their needs was extremely valuable, particularly for employers whose needs have not been met by traditional qualifications and training provision. Providers also highlighted the importance of equipping learners with industry certifications which made them more valuable to employers.

- **Delivery of training through short, intensive courses** was valued both by training providers (who had previously used this model) and by providers who usually deliver more traditional, further education provision. The short, intensive delivery model is ideal for developing and applying specific skills. This can enhance a good existing knowledge base (for example, some Bootcamp cohorts were largely made up of graduates who had good digital knowledge but little applied experience) to allow entry to more complex digital roles, for example, in cyber and software development, etc. It also enables speedy entry to digital roles which require less underlying knowledge, such as digital marketing. The focus on the specific skills required for work, rather than the underpinning knowledge, is not a replacement for more traditional learning but a complementary offer.
- **The flexible delivery model** provided an opportunity for providers to shape the content of their Bootcamps to the specific needs and interests of Lancashire's employers (and learners) and meant that Bootcamps providers could "*identify an immediate need and react to it*", even part-way through delivery. The switch to an online learning approach imposed by the pandemic allowed learners greater flexibility in their learning but did require careful management and the provision of enhanced support to keep learners engaged and monitor progress.
- **The direct relationship to employment opportunities, job interviews and employer recruitment pipelines** was very important to some learners but the impact of the pandemic on recruitment of those who participated in the Bootcamps was significant, given the point in time at which Bootcamps were delivered and concluded. With the strong focus being on delivering skills to equip people for work, the hiatus in recruitment activity amongst many Lancashire employers was a significant challenge. Ongoing efforts are being made by providers to secure employment for former Bootcamp learners as the labour market recovers.
- **The emphasis on improving diversity in technical skills** was embraced by providers, but ongoing challenges were faced in recruiting a more diverse group of learners, leading some Bootcamp providers to review the way in which they were marketed and promoted. Where more diverse learner groups were successfully recruited (for example, women from a South Asian background in the Bootcamp run by Blackburn Rovers FC), a further challenge was in identifying employment opportunities which could align with their other commitments (for example, part-time roles). Alongside efforts to increase diversity amongst learners, ongoing efforts are required to support employers to be more flexible in their expectations of how digital roles are organised and filled, in order to open up digital opportunities to a more diverse workforce.

The Provider Experience (Q31 & 32)

The providers consulted were broadly positive about the Bootcamp model, although a number of challenges had been experienced.

The first of these was **the impact of the pandemic**, which required a significant and rapid shift in ways of working from what had been planned. Most providers coped well with the move to online delivery. Although there were initial challenges with regard to kit and connectivity, providers have now built consideration of these into their induction and on-boarding process for learners. Online delivery provided more flexibility for learners and most providers said that they would continue to use a blended learning model even once the pandemic is over.

A second challenge was **the need to combine the delivery of technical skills with broader employability support**. Given the very specific nature of the technical skills required, *“trying to find appropriate teachers is difficult”*. Some providers used employers or technical specialists (for example, software developers) to deliver this aspect of the Bootcamp programme, whilst qualified teachers and trainers provided learning and pastoral support such as ensuring attendance, monitoring progress, supporting learners and ensuring that they were fully understanding the learning content.

Whilst the focus was initially very much on technical digital skills, through their employer engagement providers realised that there was also a need for the skills which would help Bootcamp learners integrate in the workplace. This covered a wide range of employability skills, including being able to *“speak geek – people need to be able to converse with potential employers”*, being confident in interviews, in the workplace and being able to demonstrate how they could apply the technical skills they had acquired. Providers built this ‘job readiness’ support into Bootcamp delivery, for example, through undertaking mock interviews, encouraging engagement with employers through ‘lunch and learn’ sessions and through the ‘real world’ projects which learners undertook. Many reported a need to build confidence amongst learners, particularly female learners, who might find job descriptions for entry-level digital positions *“off-putting”* and decide not to apply for a role they were capable of doing – *“it can be a challenge to get people to put themselves forwards – its daunting to be catapulted very quickly into an entry-level role”*.

To ensure that learners were well-prepared for work, **providers worked closely with employers**. However, this became more challenging during the pandemic when some employers needed to focus urgently on maintaining their operations and their ability to engage with the Bootcamps was much reduced. A number of employers were no longer able to offer job opportunities or even guaranteed job interviews to Bootcamp participants. Many furloughed workers or made Bootcamp learners redundant. Adapting Bootcamp delivery and focus in the light of changing employer circumstances proved challenging for some providers.

Some providers contrasted the experience of delivering Bootcamps in Lancashire, where digital businesses and opportunities are dispersed across the County, with that of delivering them in Manchester and Salford, where the sector and the employment opportunities it offers are more geographically concentrated and, therefore, more visible. Although connections are being developed across Lancashire through hubs including The Landmark in Burnley and Fraser House in Lancaster, increasing the profile of digital opportunities will help to attract more potential learners and ensure that digital careers become as highly regarded as more traditional options such as law and medicine. There is also an ongoing need to promote the importance of digital skills to the wider business base, with some providers stating that SMEs, in particular, often do not understand how enhanced digital skills could benefit their operations: *“in Manchester, it’s buzzing – we’ve not got the same digital infrastructure, culture or vision but we’re slowly getting employers to engage and understand, we’re building connections across Lancashire.”*

Finally, a number of providers stated that **the challenge of delivering Bootcamps increased as the model moved from the Department for Digital, Culture, Media and Sport (DCMS) where it was piloted, to the Department for Education (DfE), who use a funding mechanism with a greater focus on Payment by Results**. The use of entry to employment as the key positive outcome from Bootcamps was particularly challenging during the pandemic when employers were reluctant to take on new recruits. The short time period in which providers are able to report and claim payment for ‘positive outcomes’ means that Bootcamp graduates now moving into work as digital recruitment recovers are not always captured in the outcomes data. There is, therefore, a risk that the longer-term benefits of participating in

Bootcamps are overlooked (and not financially rewarded) and that the focus on securing job outcomes obscures other positive destinations including further learning or self-employment.

To respond to these challenges, a number of Bootcamps had been delivered by consortia including both specialist digital organisations and more general training providers, bringing together the range of expertise required. Bootcamp providers had adopted a number of approaches to help learners into employment, including promoting potential recruits through employer and sector networks and using in-house recruitment agencies to match learners up with existing employer vacancies.

Widening Access to Digital Skills (Q34-36)

Providers had recruited a wide range of learners to their Bootcamp provision, including recent graduates, people who were on furlough or had been made redundant, people recruited through DWP who were unemployed and a small number who were in work but wanted to improve their skills in order to progress. Conscious efforts were made to target women, people from BAME backgrounds and to bring younger workers into digital roles.

Some Bootcamps were heavily over-subscribed, particularly in later rounds once the model became better known and following the impact of the pandemic. Providers used a range of methods to select appropriate candidates including assessing existing skills and knowledge, 'tech tests' (for some of the more advanced level Bootcamps) and interviews. Providers noted that candidates' *"passion, drive and commitment to learn"* were at least as important as existing skills.

The delivery models adopted by some providers enabled a wider range of learners to access digital skills through the Bootcamps. The flexibility offered by the shift to online learning meant it could be undertaken by those in work, on furlough or with other responsibilities at a time that suited them. Most providers consulted intend to stick with a blended learning model in future, with people able to access online learning at their convenience, with learning sessions recorded or streamed so that they can be accessed remotely. However, other providers used a model where all learners were learning at the same time, even if this was remotely rather than face-to-face. The range of different Bootcamp offers also acted to widen access to digital skills – meaning that *"there is a way of learning which suits everyone"*.

The Bootcamps in Lancashire have so far engaged a wide range of employers, ranging from major multinationals such as EG Group to small and microbusinesses. This includes one Bootcamp which worked specifically with advanced manufacturing businesses, building on relationships developed through the delivery of manufacturing and engineering training to deliver digital skills to the manufacturing workforce. This model demonstrates how Bootcamps can be tailored to meet the specific digital skills needs of employers from a range of sectors, allowing them to train their workforce in the digital skills they require, rather than having to participate in more traditional training courses, much of which may not be relevant to their needs.

To date, most of the Lancashire Bootcamps have been delivered to potential new entrants to the digital workforce, rather than upskilling current workers. Smaller employers in particular face challenges in releasing existing staff for training, including the employers who were involved in the employer-led consortium. There is also a reluctance to fund training for workers given the level of staff turnover in digital roles and the potential for workers to be 'poached' by larger businesses.

Bootcamp Duration

The providers consulted felt that a duration of 12-16 weeks was appropriate for a Bootcamp, although the length is, in part, determined by the level at which the Bootcamp is pitched and the degree of previous knowledge and expertise which is required. Rather than setting minimum and maximum durations, providers and employers should determine the appropriate Bootcamp length, taking account of the agreed content, level of expertise amongst learners and the amount of time which learners are able to dedicate to the Bootcamp (for example, it may be appropriate to allow some learners longer to complete the content given their other commitments and to avoid excluding learners who could benefit from the Bootcamp model).

Employer Expectations

Some employers who had not been directly involved were sceptical about how prepared for employment in a digital role someone could be after just 16 weeks of training. In contrast, some providers reported unrealistic expectations amongst employers about the level of expertise that Bootcamp graduates might have: *“on a software development scale of 1 to 10, they were expecting them to be at level 5, when level 2 or 3 is more realistic.”* One provider noted that there was *“lots of confusion in the market – people don’t understand how things fit together”*. This indicates the need for better communication of the Bootcamp offer and an explanation of the entry requirements and expectations for different Bootcamps.

Employer Involvement (Q39)

Providers reported good employer engagement in the design and development of their Bootcamp content and delivery. Some specialist digital training organisations had used similar delivery models in the past. These providers had existing relationships with employers and had worked with them to develop the content of their courses. For others, the Bootcamps provided an opportunity to bring together a new cohort of employers who faced shared challenges in finding digital talent. Other providers used the Bootcamp opportunity to broaden their training offer to existing employer partners, for example, engaging employers for whom they deliver manufacturing and engineering apprenticeships in digital training for the wider workforce.

Employer involvement in the Lancashire Bootcamps included:

- **Input into curriculum design** – through consultations and ongoing engagement with training providers, providing feedback on skills needs and challenges and identifying digital skills priorities.
- **Employer Oversight Boards** – who reviewed both the content and the delivery of Bootcamp courses to ensure that the implementation of the model aligned to employer needs.
- **Direct involvement in teaching** – in a number of cases, employers were directly involved in teaching technical aspects of the course content. This ensured that the technical skills which employers wanted from the Bootcamps were delivered in line with their specific needs. Sometimes employer delivery of technical skills occurred alongside teaching and training professionals who provided pastoral support, checked understanding, encouraged ongoing engagement etc.
- **Real-world projects** – after an initial period of intensive skills development, most Bootcamps included the opportunity to put skills into practice through project work.

Many employers provided example or real-world projects for learners to work on, providing information on challenges faced by the business, providing feedback on students' work and giving learners the opportunity to build up a portfolio of projects which demonstrated how they could apply their new skills.

- **Talks and visits** – although site visits were limited by the pandemic, some providers asked employers to deliver talks, 'lunch and learn' sessions and share their experience with Bootcamp learners. These informal contacts were valuable for learners to help them understand potential employment opportunities and provided employers with exposure to Bootcamp learners. This helped to ensure they had realistic expectations of the skills and confidence levels amongst potential recruits.
- **Mock interviews and mentoring** – to help prepare learners for entry into employment, some providers had relationships with employers who would run mock interviews, and even act as mentors for learners. This provided learners with an opportunity to get advice directly from employers involved in recruiting people to digital roles.

The intention was that the employers engaged with Bootcamps would provide guaranteed interviews and a pipeline of job opportunities for learners. This proved to be challenging during the pandemic. The delivery timetable for the Lancashire Bootcamps meant that many learners completed their courses at a point in time where recruitment opportunities were very limited. Some employers were facing significant challenges in other parts of their businesses which meant that digital recruitment was put on hold. Digital businesses faced severe challenges in retaining existing staff, which made it very hard to take on new workers.

The economic conditions meant that it was challenging for the Bootcamps to meet their targets for getting people into employment. However, demand for digital workers is now returning and efforts continue to support previous Bootcamp graduates into work.

One of the Lancashire Bootcamps was wholly delivered by a consortium of employers who saw it as an opportunity to develop bespoke training content which met their specific skills needs: *"it came about because we were fed up that there was no specific training provision which met our needs"*. Delivering the Bootcamp was a steep learning curve for the consortium who took on new areas of work including recruiting learners, developing course content, managing a public sector funding contract and dealing with the monitoring and administrative requirements. They also acted as a 'recruitment agency', referring learners they could not take on themselves to contacts and collaborators in the sector. Delivering the contract proved extremely challenging but did ensure that they could access potential new recruits with the exact skillsets that they required.

Although the consultations were held with those who had been involved in the delivery of Bootcamps, there is a recognition that a large part of the employer base has not yet been engaged. As the Bootcamps become better established, it will be important to extend their reach to ensure the needs of a wider group of employers are being met.

Pathways (Q43)

Although Bootcamps are designed to equip people for work and the DfE payment model for the nationally procured Bootcamps includes an element which is only paid once learners enter employment or an apprenticeship, the experience in Lancashire demonstrates the importance of also enabling progression to other outcomes. This is because:

- a) some Bootcamps concluded during a period when job opportunities were limited and employers across the country faced considerable challenges in taking on new staff; and
- b) the digital employment opportunities available locally were not suitable for all Bootcamp learners (for example, most were full-time positions).

Therefore, it is important that Bootcamps also provide learners with the skills and knowledge they need to be able to progress to other destinations, such as further learning and apprenticeships, or self-employment where that provides a better fit with their circumstances than entering employment.

To enable this to occur, the Bootcamps need to be mapped and understood within the overall digital skills training landscape, with an understanding of entry routes and requirements; the knowledge and skills that will be acquired; their fit with sector skills needs and the range of potential progression routes for learners.

Policy Considerations

The Bootcamp programme in Lancashire has already gone through a number of iterations. An initial pilot phase, funded by DCMS, was developed in conjunction with Lancashire stakeholders, led by the Lancashire Digital Skills Partnership and GMCA. Local procurement meant that those working in digital and tech sectors 'on the ground', who had a clear understanding of skills needs and priorities, influenced which Bootcamps were chosen to receive funding and ensured that provision was tailored to local needs and consortia had clear links to local employers. The funding model was based on the delivery of the Bootcamp (with quality measures built in), rather than learner outcomes. Later pilot rounds funded through DfE imposed staged payments linked to recruitment, retention at the mid-point of the Bootcamp and completion of the course, which proved challenging for some providers who were affected by significant learner turnover given the impact of the pandemic. This funding model presented high financial risk to providers and some withdrew from taking part as a result.

With Bootcamps becoming a greater part of DfE's developing policy on skills provision through the National Skills Fund, the most recent procurement round has been undertaken nationally rather than locally. Opportunities for the Lancashire stakeholders and strategic bodies such as the LEP to influence what is to be delivered in Lancashire area are limited. This procurement model potentially put the LEP (inclusive of the Lancashire Digital Skills Partnership and Lancashire Skills and Employment Hub) in direct competition with its stakeholders to bid for funding. It did not recognise the strategic nature of the LEP. This approach goes against the move towards greater devolution at County level which is expected to be an important feature of the forthcoming Levelling Up White Paper.

It also risks undermining some of the benefits of the Bootcamp model which were identified through the focus groups. Reducing or removing local influence over decision-making is likely to lead to provision which is less tailored to the specific needs of Lancashire's employers, leaving Bootcamp learners less well-equipped to enter local digital roles. Ensuring coordination between providers and local businesses is more challenging when some have limited local connections. The opportunity to create stronger relationships between learners, employers and providers, which build confidence and encourage further investment in skills and training, is reduced when providers do not have an established local track record and have to establish their credibility with local residents and employers. It is important that the strengths of the Bootcamp model are not lost as it becomes part of mainstream skills

provision, and the focus on delivering tailored digital skills provision – informed by a clear understanding of local needs and in partnership with local employers and stakeholders – is retained.

Suggestions for the next phase of Bootcamps in Lancashire

A range of suggestions were made for the next phase of Bootcamps in Lancashire including:

- Enhancing connections between Bootcamps rather than a series of stand-alone offers: filtering candidates to the most appropriate Bootcamp, matching learners from across all the Bootcamps to employment opportunities and enhancing the current ad hoc connections which exist into something more systematic.
- Embedding the Bootcamps in overall digital skills provision by clarifying entry requirements, progression routes and specific skills focus and converting the Bootcamps to a rolling programme of provision rather than the stop-start model.
- Increasing the visibility and understanding of the Bootcamp offer amongst a wider group of employers.
- Harnessing the Bootcamp model to anticipate future digital skills challenges – for example, through upskilling those whose job roles will be affected by digitisation across the economy, including engineers, mechanics, electricians, retail workers etc – and facilitate the development of emerging digital sectors.
- Provide enhanced confidence building and mentoring support as part of, or alongside, the Bootcamp technical skills development, to give learners the confidence to enter digital roles at the end of the Bootcamp.
- Recognise a broader range of positive outcomes for Bootcamp learners including self-employment and further learning in addition to entry to employment.
- Support employers to be more open to flexible employment within digital roles, ensuring opportunities are suitable for a wider range of learners.
- Address issues within the financial model, including less reliance on Payment by Results, a broader range of positive results which generate payment and a longer period over which results can be recorded.

Appendix A – Consultees

Adrian Wright – UCLan

Amber Keats – In4.0Group

Clare Russell – Runshaw College

Colin McLaughlin – Lancaster University

Danielle Brown – In4.0Group

David Muir – Code Nation

Gabrielle Aspinall – CB Partners

Jim Richards – UCLan

Kam Kothia – Time2 Technology

Maya Ellis – Lancashire County Council

Mohammed Seedat – Blackburn Rovers FC

Nicola Mortimer – Tech Lancaster / Milliamp

Nicholas Poyiadgi – CompTIA

Paul Sharples – Themis, Burnley College

Rafik Adam – Enterprise 4 All

Roz Atherton – Code Nation

Saeed Umar – Lancashire Teaching Hospitals

Zeshan Sattar – CompTIA