

# JCT Student Competition 2017 – Skills Shortage

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## Confessions of a female conversion MSc student.

An essay addressing the factors contributing to skills shortage in the UK construction industry, focusing on the poor industry awareness and draconian expectations.

### Much ado about nothing

The status of the skills shortage in the industry is well and widely known; reports published, solutions identified, and yet there is still a lack of visible improvements in many aspects. It almost seems that every time the industry takes a step forward, it takes two steps back.

Arcadis' Talent Scale (2017) research found the industry needs to recruit 400,000 people every year for the next 5 years in order to deal with the skills shortage. The deficit of skilled trades people varies throughout the UK, depending on the regional constructing activity, with the three top regions in need being South East, London and East of England.

Although measures need to be taken to inspire, attract and train the new generation of construction workforce, education itself will not resolve the issue of skills shortage short term. It takes time to amend curriculum, train people and let them naturally come through into the industry.

### The Great Expectations

Upon discovering the statistics around the skills shortages in construction worldwide, and the professions available, I decided to enter the industry. I hoped to improve my career prospects, contribute to the society, and the development of the industry. As a young female, I have come across various responses. Most of them positive, welcoming and supportive. It's clear that much has been done to improve the diversity of the construction workforce and its attitude towards women.

Unfortunately, whilst the skills shortage is reaching record high levels, many young adults are struggling to gain full time employment due lack of relevant work experience. What follows are my observations and suggestions for tackling the skills shortage both in short and long term.

### Pride and Prejudice

There seems to be a disconnect between what schools encourage and what employers seek. At one point, vocational courses became second class choices; looked down upon by education providers and the population alike. Schools continued to push academia onto their students ever since, regarding those less academically gifted as destined for failure, and subsequently increasing the divide between academia and industry. The industry on the other hand values practical experience, which cannot be learnt in a classroom. This results in disinterested and undervalued young people, who go through vocational training out of obligation and driven and smart young adults, who study unavailing subjects and are met with harsh reality of not being able to find employment upon graduation due to lack of relevant experience and valuable knowledge.

Whilst considering a career in construction, I researched entry pathways, contacted recruiters, looked at job postings etc. Ultimately, I decided to apply for a postgraduate conversion degree, believing it was my best choice to get the right qualifications. Soon after starting the course, applying and interviewing for graduate positions, the reality hit me. Although not stated as essential requirement in job descriptions, relevant work experience counts for a lot more than theoretical knowledge. I was determined to find work experience for the duration of my course, or at least something before the summer holidays. Whilst scrolling through pages and pages of advertisements for mainly labouring jobs, I struggled to find one which didn't require years of previous experience and a valid CSCS card. It is understandable that some regulations need to be in place to protect workers, ensuring health and safety on site, however sometimes this results in a lack of clear entry to new talent. This poses the question of whether the industry should deter a willing workforce at such critical time for not having valid certifications, or should it help with provision of adequate training and a semi-long term contract in order to pay back for the initial investment? Is it really better for employers to wait, hoping that somebody with adequate experience turns up, or employ somebody and train them the specific set of skills that they need to do the job? The latter would secure a win-win situation, where employers are able to get the workforce faster, complete the jobs and the new employees would get the certifications and experience necessary to enter the industry.

Although there is a number of internships and work experience placements, there just aren't enough opportunities for everyone. Many internships take place over the summer, and are aimed for penultimate year students. This means students in 1<sup>st</sup> year of undergraduate degrees, as well as postgraduate students are either unable to apply or are given less priority. Of course, it's possible to apply speculatively and find shorter placements, however in the current economy such placements are hard to come by. Whilst students understand the importance of experience, many cannot afford to accept unpaid work experience placements, and simultaneously they're not experienced enough to get paid work in unskilled professions, all at a detriment to their future career prospects.

Despite being necessary for survival, money remains an uncomfortable subject of conversation with potential employers. Many apprenticeship trainees aren't being paid a living wage, having to rely on support from their parents for housing and food. Starting at £3.80/ hour (National Apprenticeship Service, 2016), it's not surprising why people would feel undervalued. Many older candidates don't choose to do an apprenticeship for two main reasons – first being the low pay rates, and second the perception of not being eligible due to target audience being 16-18 year olds.

Finally, although graduate schemes exist, many of which advertise themselves as being open to non-cognate, non-experienced applicants, given the choice the company will always choose the applicant with a cognate degree and previous experience in the industry. And, why shouldn't they? Recruiting more able and experienced candidates, saves money and time on extensive training and allows companies to capitalise on new talent. This inadvertently causes the unexperienced candidates fall through the cracks; rejected from the industry that desperately needs more people.

### The Odyssey

The solution to the problem of skills shortage is a journey, not a sprint. Many measures will need to be undertaken simultaneously to treat the cause, rather than the symptom of the problem. The cause in simple terms is the lack of students choosing construction as a career path, due to lack of awareness, ultimately caused by years of bias in schools, the media and at home, portraying the industry as dirty, unsafe and unskilled.

## 1. Awareness and Image

A task of changing the image of the industry is not an easy one. The efforts must come equally from education providers and the industry itself, through increasing the awareness in schools. Whilst some improvements can be seen through initiatives such as Open Doors, they need to happen on a much larger scale. It's relatively easy for people already interested in construction to find events to attend and publications to follow, however the aim is to reach those who are not aware or currently interested in a career in construction.

For decades, there has been a bias in schools towards promoting university education. Education providers should inform students on the industries available, including construction and support them in their choices. It's in the best interest of the government to incentivise schools to promote industries with the highest skills shortages, in order to improve the economy and reduce unemployment due to high saturation of particular skills and degrees.

On a more regional and local level, the education sector should team up with local companies and recruitment agencies specifically dedicated to construction. Their job would be to inform the students about exciting developments, both in terms of buildings and structures, as well as technology, such as augmented and virtual reality, drones and robotics. Such presentations could happen during the morning assembly, exposing all students to the industry, targeting both genders and ethnic minorities of young people to ensure a steady pipeline of diverse talent coming into construction. Once the relationship with the local employers is established, there would be an opportunity for additional promotional and educational events such as construction related competitions, testing students' creativity as well as practical skills. The winning team would be given the opportunity to visit a local construction company and shadow them for a day or visit one of their sites. The benefit of competitions on a smaller, local scale is the ability to focus on specific local industry requirements, promoting the professions most in demand in the given region. In terms of funding, the event could be advertised in the local newspapers to attract sponsors and collaboration from other companies, who could benefit from additional work through such positive advertising.

## 2. Training and Education

The employability of young people could be improved by amending the national curriculum and allowing both soft and specialist skills to be developed organically through activities in class. The industry should drive the development of a curriculum designed to train the future recruits, ensuring practicality of the courses and a suitable preparation for the working life.

Soft skills such as communication, negotiation and delegation could be developed in English classes. These activities could be based around debates and role plays, stimulating the students mentally, whilst keeping the topics practical and real life orientated. Similarly, skills such as control, planning and judgement could be installed in Science based subjects, perhaps involving mini projects for the students to take ownership of. Young people appreciate being trusted by adults to make their own judgement and carry out tasks on their own either individually or collectively. The idea of working on mini projects would, amongst previously mentioned skills, encourage teamwork, which is crucial for success in any industry the students choose to enter, and therefore is suitable for all students across schools in the whole country.

Similarly, during post-secondary school education, students should begin to learn about collaborative environment, where various subjects share a module or coursework which allows them to work together collaboratively. The ability to identify people's strengths and plan accordingly is transferrable to any industry and leadership position.

Specialist skills on the other hand could be developed from GCSEs onwards, with an introduction to BIM software and CAD in ICT and model making in Art to spark interest in the built environment. Many young people enjoy building things, be it using Lego, or playing games like Sims or Minecraft. The education sector and the industry could harvest that natural interest and spatial intelligence and develop into an interest in AEC industry.

Colleges already offer specialist courses and apprenticeships such as Architecture, Electrical engineering, Carpentry, Bricklaying and more. The technology aspect could again enhance the learning experience through tapping into the natural predisposition of young people to technology. Augmented and Virtual reality could enhance subjects such as Architecture, Construction, Engineering, Urban planning. Furthermore, learning in a virtual environment could provide a chance to learn complex skills in a safe environment and realistic setting.

Finally, problem based learning should be introduced to schools across the country. Academia tends to work with idealistic notions, which are far from the real world that students enter upon graduation. This approach has been highly successful at my university and although the complexity would need to be adjusted for younger students, it's helpful to put ideas into perspective. Students often struggle with abstract ideas, and by working with real life situations students develop their confidence, commercial and analytical skills, as well as become better prepared for the world of work.

### The Battle of Life

Although training and developing the new young force is necessary for long term solution of the skills shortage, it's not enough to solve the pressing short-term issues.

Outsourcing talent from abroad is the natural and historically documented instinct for dealing with skills shortages. In practice, it only treats the symptom, and should therefore be a temporary measure; a supplement to the long-term solutions. Furthermore, the uncertainty of international workers' rights post Brexit, outsourcing talent may prove to be counterproductive. Whilst this is a problem for future immigrants, the rights of existing international workers should be secured both for their and the industry's benefit. Additionally, Brexit will have significant implications on the future of EU competition law within the UK. With less international competition, and a lack of skilled workers inside the UK, many projects could be put on hold, affecting the future development of the economy. This means that the industry cannot allow even more diluted workforce, and the government should recognise this as a potential threat.

Another short-term solution could be attracting back skilled people who have left the industry, be it due to family reasons, redundancy during recession or to find more stable and secure work. Women who left their jobs to become mothers and never found their way back should be encouraged and welcomed back by companies.

Additionally, the industry could look to other industries for non-cognate candidates seeking a career change. Since they already possess highly developed soft, transferrable skills, their knowledge of the industry could be developed relatively quickly through a distance learning conversion course and on the job training. Furthermore, the industry should consider the unemployed and homeless candidates, who with the help of the local government and charities could again solve not just the problem of skills shortage, but also one of unemployment and homelessness. Help and provision of basic training for those candidates would partially fill the unskilled and semi-skilled jobs and reduce the pressures on the industry and economy.

Finally, to increase the awareness and appeal to younger, more tech savvy generation in the short term, the industry needs to 'enter the 21<sup>st</sup> Century'. Initiatives such as Go Construct can be useful tools in promoting the industry professions and pathways, however they need to be coupled with resources such as schools and social media to reach the widest audience. Although image will take some time to change, awareness can be increased relatively quickly through various media such as viral videos. Teenagers respond well to MoneySuperMarket adverts, and music videos such as 'Happy' by Pharrell Williams, which was adapted all around the world. While filming of such video could require substantial capital, it would be able to reach wide audiences and portray the industry in a new and exciting light of high tech and fun, whilst showcasing the possible roles in the industry.

### All's Well That Ends Well

The proposed solutions are based on my observations made since starting my course in September. Although there isn't one solution, and a joint effort is required, I believe the solutions can be applied to most trades affected by the skills shortage.

I believe technology and the education sector could significantly affect the awareness and image of the industry amongst young people. Placing more pressure and responsibility on schools to offer unbiased career advice will empower students and allow informed decision making.

Finally, the industry should be more forgiving for lack of experience and change the attitude towards training and development, which should be seen as an investment in both the company, the employees and the industry.

Word Count: 2500

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