

ENGAGING FEMALE EMPLOYEES AT TECHNICAL AND PROFESSIONAL STATUS IN THE SOUTH WALES CONSTRUCTION SECTOR

Mike Murphy¹ and Zhaomin Ren²

¹ Faculty of Engineering and Built Environment, Coleg Sir Gâr, Ammanford, SA18 3TA

² Faculty of Advanced Technology, University of Glamorgan, Pontypridd, CF37 1DL

The construction industry in South Wales mirrors the remainder of the UK relative to numbers of the female workers employed as technicians and professionals including architectural technicians, project managers and surveyors in the built environment; the gender imbalance equates for 11.6% of those working in design and management occupations. Sector Skills Councils (SSCs) such as ConstructionSkills have attempted to raise the number of female operatives in trade, technical and professional levels with initiatives such as the awareness raising campaign 'Positive Image'. Factors such as industry image, male domination, the possible lack of peers, family influences and ineffective promotion of the industry are arguably detractors from female school leavers adopting roles in the sector. Ultimately the influence of potential employers cannot be ignored on the impact on the intake of female recruits. Although the abovementioned initiative amongst others have admirably attempted to address the current imbalance, it is argued that a more effective and sustained approach to attracting females at pre school-leaver age will be necessary to break the 'glass ceiling'. This paper explores the thoughts and opinions of female built environment technicians and professionals, potential employees and employers in South Wales through discursive interviews. Ultimately, through concerted, positive industry promotion focussing at pre school-leavers, a more effective and sustained approach towards recruitment may be derived to increase the uptake of a poorly utilized and under-recognized labour force available to the sector.

Keywords: gender, industry perspective, professional, technical, voice.

INTRODUCTION

ConstructionSkills (2007) introduced the 'Positive Image' campaign to entice females into the construction workplace and reported favourable results, today little is seen or heard of the campaign. In their defence, they are reconsidering what they offer to the sector in the shape of training programmes to "...improve diversity..." (Lloyd 2009). Gurjao (2006) reported the "...the changing role of women in the construction workforce" and the "...need for diversity..." in the industry. Earlier research considered women in the construction workplace, Dainty *et al.* (2001) discussed "equality measures"; but a thorough insight into the barriers of technical and professional status employment is particularly inadequate in South Wales.

¹ mike.murphy@colegsirgar.ac.uk

² zren@glam.ac.uk

Both written and anecdotal evidence has provided a number of reasons for the low female uptake in the sector; discrimination, work-life balance of dual-career couples, the lack of peer support and guidance as discussed in a positive vein by Loosemore *et al.* (2003) who also considered industry perspective including the negative stereotyping of the sector. Lu and Sexton (2010) refer to parental influence and O'Donnell's (2008) research implies ineffective promotion of not only construction but of engineering and manufacturing too; McCarthy (2010) reiterates the need for more role models. Notwithstanding the current economic climate, a skills shortage continues to be reported at graduate and apprentice levels. That coupled with the ageing construction population (CIOB 2009) provides more reason to attract a little utilized and some may argue undervalued resource.

Much criticism was pointed at employers in South Wales for utilizing skilled migrant labour as they argued, as an antidote to the lack of available labour at the time. If adequate provision for wide-ranging employment opportunities was enacted for both sexes surely the necessity for engaging labour from outside the United Kingdom could be eased, excepting unusual circumstances for bespoke or specialist type contracts.

Innumerable websites admirably attempt to attract females into the sector including the recently reported 'Pink Ladies' scheme aimed at encouraging more women to enter into a career in the industry focussing on the mid and West Wales region. One criticism could arguably be is that it is another portal amongst a proliferation of websites accessible to prospective female employees.

The aim of introducing more females into the industry requires meaningful, effective and sustained promotion initially in schools, including a change in training practices and a melding of Sector Skills Council (SSC) initiatives as an alternative to the disparate trade and professional initiatives witnessed at seemingly regular intervals, also arguing the need for a coming together of all stakeholders and like-minds.

LITERATURE REVIEW

Raising awareness

Shanmugam *et al.* (2006) compared the employment methods adopted by the industry and the medical profession; the issue raised due to the then buoyant construction sector, the then skills shortage and an investigation of the possible methods of attracting women into the industry by the UK Government. Suggestions adopted from the investigation were to "...raise awareness..." by "...women working on construction committees..." and utilizing women as "...role models"; the concept recently discussed by Lu and Sexton (2010) and highlighted by McCarthy (2010).

Clarke and Gribbling's (2008) research on the Heathrow Terminal 5 (T5) project, reasons the lack of women (and ethnic minorities) reflected findings from previous investigations; negative perception and the lack of female presence as role models in the built environment. It is further suggested promoting the industry is an issue and highlights the lack of utilizing schools as a breeding ground for suitable candidates.

The affect of dissipating drive and focus in such recruitment measures seems to be a recurring theme with most if not all of the initiatives introduced by SCCs and professional bodies, suggesting an effective, prolonged and concerted effort is necessary to make substantial and indisputable changes.

Training Issues

The Construction Industry Board (CIB 1996) document 'Tomorrow's Team' stressed "Schools must encourage and emphasize the modern application of engineering and

sciences...” and provide an “...expansion of work places...to counteract the cultural bias...against the construction industry”. It is argued, by the time girls have reached fifth or sixth form a career decision has often been made and is too late to influence a career choice. This suggests a requirement for timely, informative and adequate career advice. Furthermore, the document states that students were “scathing” of the advice, if provided, given by careers advisors, ultimately affecting the number of females moving on to built environment courses.

An admirable method of providing young females with experience in quantity surveying is discussed by Eaton and Morton (2008). Operating through an organization within Sheffield Hallam University (Women in Science, Engineering and Training), 17 girls from a regional school gained places on the scheme, the largest proportion of the attendees from a school where a female teacher had recent involvement with personal work placement in the construction sector, significantly providing encouragement to those girls. One attendee gained a full-time position with a local employer as a trainee QS.

Considering the role model scenario as suggested by Lu *et al.* (2008), Boxall and Purcell (2008) recount the ‘SBN’ or ‘sit by Nellie’ method of training. By providing the encouragement necessary to assist a burgeoning career through peer support the employee builds up an understanding of the employer’s expectations and similarly the employer develops a reciprocal expectation of the employee’s beliefs (Raidén *et al.* 2009), ultimately to maximize potential (Armstrong 2006).

Referring to the statistics available to the CIB (1996) from the University and College Admission Service (UCAS), an average of 12% of the student cohort on built environment courses nationally were female, similar to the figures (11.6%) provided by bConstructive (2009). The currently available figures for South Wales’ universities’ intake indicate a ratio of 83 male to 17 female students (Unistats 2009). It could be contended that any improvement in the numbers of females attending these courses should show more females in the industry but the question that must be posed is, is an increase of 5% in 13 years acceptable?

RESEARCH METHOD

The project utilized semi-structured, digitally recorded discussions to gain first hand opinions from a range of women in South Wales, as Caven (2008) argued referring to Jones and Evetts the interview method of information gathering is appropriate for this type of exercise as the views of the participants are subjective and broadly career based views. The collection of qualitative data through the discussions hopefully developing a grounded theory (Fellows and Liu 2003) of the participant’s concerns and as confirmed by Naoum (2007) reiterating Bryman developing the theories and concepts of current and previous research.

The approach was preferred as it was expected that recommendations may stem from the views of the interviewees and the object of the exercise to ascertain first-hand, the barriers and connected issues the respondents may have encountered. A number of employers were also questioned to ascertain their views with a view of forming an objective understanding of the issues surrounding the dearth of female technical employees.

Female questions

The questions related to current employment and how and why they arrived at their careers, the following questions were included to determine the influences on them in

choosing that career path and to establish whether family, friends or careers advice were party to that influence. Questions determining the quantity and quality of careers advice to include work experience and local employer visits to their respective schools to discuss job opportunities, much has been discussed regarding the quality of advice provided by careers advisors and schools. The proceeding questions were included to discover how information about the built environment was provided, if any, by whom and at what stage in their lives. An insight into the respondent's experiences to date in employment and their own perceptions of women in the industry was investigated to derive a female perspective of local construction; also their views on the role of the Sector Skills Councils in engaging females into the industry. The respondents were questioned on their awareness, knowledge, perceived usability and usefulness of websites to gain a measure into the considered effectiveness; all in an attempt to glean suggestions of methods to make the industry more of an attractive career option.

Employer questions

To hopefully gain a balanced view of opinions employers were also questioned. The findings initially to investigate how many people were in their companies, how many women were employed and at what capacity. Whether the employer actively or otherwise recruited women and the reason for their actions was asked in an attempt to gain their perspective of female employment in their organization; from that, if they had witnessed positive outcomes of employing female staff, if so, what benefits.

As for the employer perception of the number of women working in the industry at technical and professional level, questions were posed if an increase was considered necessary and why; what they knew or considered other employers perceived of female technicians, and if their attitude to employing women had changed over time. As with the employee questions, the employer's perception of Sector Skills Councils was also considered. They were also asked if they provided links with schools for careers opportunity talks.

RESULTS

The final count of respondents included four employers (all male) and 23 females. They included nine female employees working for a mix of building contractors, an architectural practice and other private sector organizations; five built environment students; two self-employed; and seven employed by two local authorities. Of the five students, only one was willing to be digitally recorded but all agreed to complete a questionnaire. The reasons for non-attendance for interview and the wish not to be recorded could be attributed to a matter of 'trust' between the participants and the researcher as experienced by Morgan *et al.* (2008).

Employer responses

The employers indicated a change in the last 20 years in the attitudes to women in the workplace "...the industry is very conservative...but it is moving forward...", also confirming the greater expectation and confidence of females generally. Feedback suggested it is the larger organizations that can 'afford' to allow for facilities for both sexes on sites and helping to drive a change in attitudes in the industry. A criticism was levelled at the CIOB for not 'advertising' effectively the achievements of women, reflecting the need for more 'case-studies' of successful females in the industry to entice others to take the built environment option. Similarly, ConstructionSkills was afforded some criticism regarding its poor communication and engagement with employers. The need to target schools more to promote the built environment to a greater level was stressed; the employers stated their willingness to speak in schools in

an effort to attract not only females into the industry but the 'right' calibre of person, the important factor to raise the standards of the workforce. Paradoxically, reflecting the current economic climate, it was reported that Government spending cuts are affecting levels of training advisor turnover.

There were mixed opinions of possible barriers to women in the industry, suggesting dependence on the size and structure of an organization; the larger national/multi-national firms having to be seen to be more inclusive. Larger organizations tend to have a policy that is more employment inclusive, smaller organizations generally working in a more rigid perhaps 'old-fashioned' attitude system towards its workforce, "...it's taken 20 years for the 'nationals' to begin to change things...it's slowly filtering down through the system". Larger companies can 'afford' to embrace modern employment methods and make allowances for women in the industry as far as family and maternity leave are concerned. According to one employer, in his experience women can be more measured and enthusiastic in their jobs. Additional benefits arise depending on the type of contract and the corresponding clients, a children's hospital contract cited; the thoughts echoed by the two larger employers.

Notwithstanding the changing attitudes in the larger organizations, the view of the public at large is that 'builders' carry out the work and do not see the broader picture of a range of highly skilled professionals and technicians. That does not mean a picture of perfect calm needs to be painted "...they see a building site with mud on the road, blokes soaking wet in pouring rain...but don't see the people in the office with computers creating programmes, designing or managing". The fact that it is an industry with acceptable and not insurmountable challenges exist within its bounds needs to be portrayed, an interesting and fruitful career awaiting those who are willing to work hard in it.

Built environment organizations are seen more nowadays to invite visitors, including schools and colleges, particularly the larger organizations, primarily to display the industry in a better light through initiatives such as Considerate Contractor, "...kids don't see what we do...its all behind a fence...visibility is needed". The larger contractors also initiate marketing campaigns to attract graduates and all are willing to be involved in providing 'taster' days for those nearing school leaving age. An opinion provided was funding streams need improvement to open doors to firms into schools to attract more incumbents of the calibre required for the industry, but reflecting the current state of the industry, one employer considered it "...an opportunity lost the way things are...more people are laid off than taken on"

Female responses

Most of the respondents did not initially choose to be involved in the built environment, those that did (four) being influenced by either parents or close relatives already in the industry. Two responses were "...my father is a QS but I became a teacher...and hated it. I decided to go into construction"; "...my brother is a civil engineer and my father a mechanical engineer". Another stated her father "...tried to put me off construction...I was too young and shy". Schools tend to guide pupils towards the stereotypical male/female jobs, girls directed towards the "usual" careers in teaching, childcare, nursing etc. the built environment not given a mention, responses disclosed such as "...knowing what I know now I would have taken design technology...but nobody told me", "...teachers seemed surprised when I said I was applying to do architecture" and "...not much advice...only girls' jobs".

Those that end up in construction tend to 'fall' into the positions rather than arrive there with a clear career path. One respondent stated "I used to draught jewellery...in some ways architecture followed naturally..." Many of those questioned did not remain with their original professions but eventually moved to their current positions by a chain of events or by chance. A number began careers outside built environment related occupations and "...moved between different departments..." in their organization eventually "...moving up the ladder".

Generally, any initial careers advice provided was either inappropriate or poor, on the whole directing the recipients towards the aforementioned stereotypical female occupations; only those with a career in mind used the service effectively, utilizing advice prior to or during career changes from services such as Careers Wales was deemed to be more appropriate but used by only a small number of the women. Half of the respondents related their own daughters' recent experiences with careers advice and particularly the lack of synchronicity in selecting subject choices and careers information, also the poor advice available for construction centred careers, "my daughter has not had anything (careers advice) as yet but next year will be too late. Its in year 9 you make your choices...they may (later) think I want to do that but I have not taken science..." The generally negative response to female only courses reflected the view that a fully inclusive industry needs to be portrayed, that is not to say that initiatives in the mould of the Sheffield Hallam project could not be utilized further in schools introducing girls to construction early on then "...combining at diploma or HNC levels".

Similar issues were experienced during work experience (if provided for); girls were generally expected to work at conventional female workplaces with three arranging their placements at built environment related organizations. The experiences in the main part were unsatisfactory "...being bored at an accountancy office..." or "...waiting for someone to drown..." (as a pool attendant), the girls utilized as 'cheap labour' by the hosts "...sweeping up cockroaches" at a local stadium. Visits to schools by employers has in the past consisted of the likes of the armed services, police and fire services, although examples were provided of pharmacists and dentists also speaking to pupils. One interviewee related the process was aimed at and provided by "...high flying types...and thought it was going on for somebody else..." another felt the advice received "...was very negative towards females".

Negative influences may stem from current industry employees. One respondent experienced issues with site management and verbal forms of sexual harassment for one respondent employed at the time for a major contractor "...it took an external agency manager to point out the way I had been spoken to...by management...not the boys on site. I had thought it was me and had to toughen up...it was a relief...thought my career was going pear-shaped". Another felt intimidated by a company director and experienced sexual discrimination, "On my placement year in private practice I often felt subject to sexual discrimination...from one of the directors...after 6 months I was moved into a room with him by myself...made me feel very uncomfortable ... even assumed I would make his tea". What is concerning is these cases happened at all, but more alarming is the cases are recent occurrences. Treatment apportioned to a small number of women is still of the 'little girl in the office' attitude, the 'old school' of the industry seemingly finding difficulty in accepting the role of professional women in a modern industry, "There are times when I feel I have picked a battle and have to stand my ground and perhaps be better than the next bloke". Although, it is recognized that a 'sense of humour' is required for what can be a very demanding and

challenging industry to work in regardless of occupation or profession but a case of 'getting used' to old industry attitudes is unacceptable. A respondent who has 'moved up the ladder' reflected "...the foremen and tradesmen are more accepting of the change in my role; it's more difficult for the manager to accept that (change)".

The evidence provided indicates a distinct difference when employed by a local authority and a private organization; one respondent commented it "...was positive within local government but not so much in private practice..." Those employed outside of a local authority still encounter issues with childcare (and hence flexi-time) and maternity leave and attitudes, as one respondent provided "I find it hard in a small firm of 20 employees, is it different on the outside?...I suspect its not much different having spoken to Qs and people giving us advice...I think it's a widespread problem". In comparison, the major contractor interviewed confirmed he had not had an issue as yet with female staff and pregnancy, possibly too committed to the career to raise families?

Case studies of successful women in the industry have and are being used to portray the industry as an inclusive environment to work in, what is required is for these people to target not only school leavers but also the younger element.

ConstructionSkills already utilize the aforementioned 'ambassadors' but effectiveness may be an issue, "...I am struggling to think of examples in trades magazines before 'Women in Construction' of any outstanding headlines of examples..." and continues "I think it's invaluable. It's really important to target your audience...to see what they can achieve...set realistic targets". The scant knowledge of networks in the vein of WICNET also requires redressing, of those interviewed; all but two expressed an interest in attending or joining such groups, the issue being the lack of 'marketing' the fact they exist.

DISCUSSION AND CONCLUSION

Careers advice provided to school leavers remains to be fully and effectively under-utilized and does not provide for the full range of employment opportunities and more significantly for construction. If specialist school teachers cannot provide information for pupils, a more thorough system of careers advice must be provided for including visits by suitably vetted built environment employers and successful female technicians to improve the diversity issues (Gurjao 2006, Lloyd 2009) by providing clear information to pupils and outline the full range of job roles in the industry. The industry also needs to target schools more effectively and consistently following on from Clarke and Gribling's (2008) assertion, to attract the required calibre of prospective candidate at an early age and make them aware of the array of opportunities that await them.

Reflecting Lu and Sexton (2010), even parents in the industry may dissuade their daughters from taking up construction careers but some will have a positive effect if only by osmosis. It could be argued that by initiating media campaigns in the mould of the 'Teaching' advertisements to counter O'Donnell's (2008) ineffective promotion of the industry, a broader spread of parents and prospective school leavers could be targeted to further indicate the range of careers on offer in the industry. The apparent lack of awareness of industry related websites again questions the effectiveness of this area of media coverage considering the many websites that pervade the internet, argued as a case of 'preaching to the converted'.

There remains a poor image of the built environment amongst the general public and until that issue is thoroughly addressed it will continue to pervade peoples' opinions. To counter that as one contractor referred to, there are some fantastic landmark buildings for the industry to be proud of and must advertise the fact that it can be a very rewarding industry to be employed in, there are not many sectors where its incumbents can stand back and proudly say 'I was involved in part of that'. The fact that there remains a significant gender imbalance can in part be connected to the lack of effective media coverage, as one of the interviewees stated "...women don't choose to come into the industry..." because there is a general lack of awareness of the possibilities, everyone is a 'builder'!

Work experience has unfortunately been criticized in the past as simply an avenue for some employers to utilize future school leavers as cheap labour. By considering the Eaton and Morton (2008) scenario and employing that method with role models as Lu *et al.* (2008) and McCarthy (2010) discuss, opportunities will arise to provide for realistic and effective work experience for both sexes but the object being to attract more females into the industry. The choice of construction for only boys must be negated to undermine the stereotypical images of boys' and girls' jobs for their future employment opportunities. The possibility to take on effective work placements, possibly paid, will need to be made available but with strict policing of the system. It could be argued the method would be considered a 'token' gesture towards females but Lawrance's (2009) argument counters that with the fact the "...massive under representation ... undermines...a sense of social justice..." albeit relating to the engineering context. Similarly, as Keith Clarke of Atkins is reported by Swiszcowski (2007) states "Diversity and differences enrich organizations and are the opposite of tokenism... Achieving diversity is not convenient but is a right".

The use of peers to provide support and advice to individuals as discussed by Lu *et al.* (2008) and Lu and Sexton (2010) is not a new phenomenon but the call from most of the respondents for more of this type of encouragement provides added weight for a system of peer support or networks to be initiated further. The ConstructionSkills model of utilizing 'ambassadors' should be utilized thoroughly and from the evidence provided, employed to encourage not only females already working in the industry but those who may be considering a career in the built environment whether school leavers or those considering changing vocation.

The apparent lack of knowledge of industry networks requires addressing to counter McCarthy's (2010) view of the lack of the provision of a supportive network of advice. The provision, as with the aforementioned promotion of the industry, begs a concerted campaign through regular 'marketing' in selected built environment journals and industry magazines. Used effectively the networks can provide further support to complement the abovementioned ambassadors.

ConstructionSkills-Wales (2010) recently released the document 'Be part of tomorrow' enthusing on the careers available to all in construction, listing the technician positions available ranging from buyer to architect. It would be interesting to follow up how effective the publication is in terms of attracting youngsters into the built environment and particularly girls as it includes two case studies of women who have succeeded. It is apparent reiterating O'Donnell (2008) there is a lack of a sustainable and thorough nature to the campaigns and ongoing measurement to deduce the effectiveness of those initiatives. The image provided by 'Pink Ladies' although focussing on trades is to be lauded in some respects, it was suggested that the wearing

of pink hard hats and hi-vis, as one respondent put it, was ‘demeaning’ what is required is effective marketing of an inclusive female friendly industry and not one where segregation is indicated by the colour of safety wear.

The campaigns seem to be initiated in waves or what is regarded as contemporary themes at the time. Comments made by a number of the respondents were that they had seen little or no publicity for opportunities in the built environment, if it was there; it was not getting to those that mattered including most of the respondents with children of their own. Similarly, relating to the number of websites that pervade the internet, a possible amalgamation or at least linking of the most relevant sites must be considered, again thoroughly publicized to indicate their existence initially and from that attract more candidates who may not be aware of the available range of job roles in the built environment.

The inclusion of the built environment (reflecting the CIB’s (1996) emphasis of construction) as part of the school curriculum in the 14-16 provision is in the process of being ‘rolled out’ in Wales as a ‘pilot’, already used in England with the Principal Learning qualification but only provided to, arguably, ‘disaffected’ candidates. Included in the course is a wide range of learning criteria connected to the industry, provided concurrently with the Welsh Baccalaureate is the provision for work experience. By utilizing effective work experience placements with worthwhile realistic training for the students, hopefully more candidates of the calibre required for the industry may come forward as a result of the process. An assurance and willingness from all educational establishments must be provided that both girls and boys are presented with the equal opportunity of attaining the qualification and not pushing the girls into the stereotypical job roles as has been experienced in the past.

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