

Innovation Circles and Women in Construction in the Construction Knowledge Exchange North West

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The University of Salford's Construction Knowledge Exchange North West has been working with women from the construction sector in small groups known as Innovation Circles. This innovative approach, using an Action Learning methodology, has been successful in engaging women from the industry to work more closely with the University, who may not have originally considered this collaboration as being able to offer tangible benefits to them as individuals or to their companies. Thus far, the concept and principles of Innovation Circles has been well received throughout the North West and has provided a means for women working in the construction sector to meet together in small groups in a more focused way. Innovation Circles offer businesses the time and space much needed for reflection and encourages them to work in a more innovative way. Members meet to network, share ideas and issues surrounding their working practices, therefore offering them the opportunity to learn from each other and improve their knowledge, which they can then use in their roles and make a difference to their businesses. They have invited speakers into the groups to present on topics relevant to their work. Innovation Circles provide women in construction with an ongoing and developmental challenge They already have a wide knowledge and are experienced in their own field of work – they are their own "experts". This paper will detail the development of the women in construction Innovation Circles in the North West and how the Construction Knowledge Exchange has worked in close partnership with women in the construction sector in this supportive way. It will also detail how the Innovation Circles have developed, why they have been successful and where/how they may develop in the future.

Keywords: Action Learning, Innovation, Women, Knowledge Exchange

Background

The Gender Agenda

The UK construction industry employs approximately 2.1 million people and generates £152 billion of turnover, therefore representing 8% of the UK GDP (SSA, 2007). Despite the industry being one of the largest in the UK, the issue of the low number of women joining and staying in the industry isn't new. This is highlighted in projects such as 'WAMT' (Women and Manual Trades) which was established in 1975 to promote women working in the trade as a positive and enjoyable option. Other examples include 'WISE' (Women into Science and Engineering), created by the Council and the Equal Opportunities Commission in 1984 to encourage women to consider careers in science and engineering including construction and 'WARM' (Women as Role Models) which was established in 1992 as a registered charity to encourage women in the industry to act as role models to school children. Women currently make up just 10% of the UK construction workforce (NAWC, 2007) with only 1% of manual employment and 31% of non manual and therefore making the manual portion of the sector amongst the most gender imbalanced in the UK economy (SSA, 2007).

Although UK construction has grown over 30% in the last ten years in both output and workforce (SSA, 2007) the numbers of men and women are now almost equal in other sectors such as law, accountancy and medicine although construction has not seen a corresponding change (EOC, 2004). In addition to this, the UK construction industry is set to see continued growth fuelled by the 2012 Olympics and government ministers have estimated that 90,000 new recruits are needed in construction each year (Goodwyn and Munn, 2006). Therefore, to meet the challenge of the skills gap, the recruitment and retention of women is no longer simply a nice thing to do; it has become a necessity (Gurijao, 2007). Consequently, faced with significant drivers for change from the economy, pressure from clients to improve performance, innovation and new technology, sustainability, legislation (SSA, 2007), the labour shortage and skills and the need to attract and retain more women in construction remains a significant focus both regionally and nationally for the UK government. This is evident in the ConstructionSkills Agreement for Construction of England and the work of other organisations such as the National Association of Women in Construction (NAWIC) which aims to improve the profile of professional women in the construction industry.

The need to focus on the gender agenda also remains a priority for the North West since like national trends construction employment is expected to increase by 10% and reach 309, 000, accounting for 11% of the UK total (ASCSkills, 2007). As a result, current initiatives and projects in the North West include the ConstructionSkills Change the Face of Construction and the North West Diversity Forum.

The Construction Knowledge Exchange (CKE)

The University of Salford won its bid for a Construction Knowledge Exchange in August 2004. This is one of 22 knowledge exchanges that have been created by the UK Higher Education Funding Council across a range of disciplines. The project has the vision to promote knowledge exchange between industry and universities in the UK's construction industry and aims to promote and enhance engagement in activities that establish industry needs, capture and share knowledge and build capacity and resource through enabled networks and links that reach out to all levels of business and higher education. The project is a partnership between four national agencies, which is supported by a regional framework of universities. The national agencies are Constructing Excellence (CE); the Construction Industry Council (CIC); the Construction Industry Training Board (CITB), which together with CITB Northern Ireland and CIC form ConstructionSkills the new Sector Skills Council; and the Centre for Education in the Built Environment (CEBE). The Construction Knowledge Exchange North West (CKENW) also received additional funding from the North West Development Agency (NWDA) for the CKENW project and from the European Regional Development Fund (ERDF) for the Construction Partnership project, in order to further develop Small Businesses in the North West's Construction Industry. One of the deliverable outputs for the NWDA project was to set up two further Women in Construction groups and to develop facilitators via a mentoring process within groups known as Innovation Circles.

Innovation Circles

An Innovation Circle is a tool developed by the Construction Knowledge Exchange for promoting personal and company development in construction. It typically comprises 6 to 8 individuals, who meet regularly, e.g. monthly, on between 3 to 6 occasions to share and apply knowledge on an important business issue, e.g. health and safety in construction. The process involves identifying needs, planning and taking action, reflecting on the results and, if necessary, addressing further issues. Innovation Circles use an Action Learning methodology, they are facilitated by the CKE and supported by advisers from partner organisations such as Business Link or ConstructionSkills. As part of the project in the North West, The North West Development Agency funded Innovation Circles which were specifically for women owners or managers in construction in the North West. Although other Innovation Circles were running successfully throughout the North West using the same Action Learning methodology, the majority were male dominated and therefore, the setting up of groups specifically for women in construction, helped to redress this imbalance.

Action Learning

What is Action Learning?

Action Learning is a method of problem solving and learning in order to bring about change for individuals and their organisations. It is considered to be the most important form of management development to emerge over the last thirty years and was developed by RW Revans (Revans, 1982), who described it as:

“a means of development, intellectual, emotional or physical, that requires its subject, through responsible involvement in some real, complex and stressful problem, to achieve intended change sufficient to improve his observable behaviour henceforth in the problem field. ‘Learning- by-Doing’ may be, perhaps, a simpler description of this process.”

It was Revans belief that managers learn best from each other, working on real issues. Members work together in small groups (sets) of between six and eight people, discussing important organisational problems or issues. Importantly, they take action and learn from the effects of these actions in both a supportive and challenging way. Research conducted in the Revans Centre for Action Learning and Research at the University of Salford has shown that Action Learning has great relevance to very broad fields of practice and professions. It embraces the notion that professional people learn best when they are compelled to face and solve real problems and develop ideas in the company of like-minded people who are also trying to resolve their issues. Pedler (1996) says that:

“Working in small groups, people tackle important organisational issues or problems and learn from their attempts to change this...where each person presents their ‘status report’ or current understanding of their problem, whilst other members listen, express support, make suggestions, but above all pose questions. This may lead to questions which the person may not have considered for themselves. The aim is to find those questions which lead to the person

questioning themselves. When this happens it is a process which can lead to questioning insight.”

Action Learning can be viewed as a powerful triangulation of three distinguishable learning experiences, which lend themselves to critical monitoring and evaluation. These three angles of learning in Action Learning were described by Botham and Morris as **Work, Set and Information**. At the centre of all this was the constant need for monitoring and evaluation. This is represented in Figure 1.

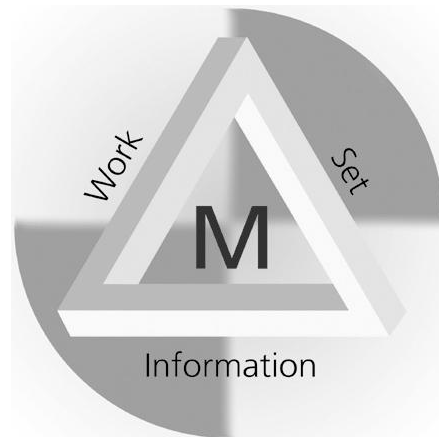


Figure 1: Botham & Morris Learning Triangle.

The first angle is a focus on the learning experience from work. It is recognised and sustained as the individual observes and records his or her own actions and experiences gained from the actions of others engaged in a work setting. The second angle focuses on the learning experienced from participating in an Action Learning set. Again, the experience is carefully monitored by observation and recording. As the set challenges and questions the learning experience gained from work and the set, the focus is increased. The third angle is a focus on learning gained from information such as books, papers, courses, seminars, workshops, or whatever the individual believes is informing his or her mind which is different from the experience gained from the first and second angle is relevant for the third angle of learning (Revans Institute, 1997).

Skills needed for effective membership of an action learning set

There are many advantages for businesses to become involved in Action Learning and Pedler (1996) describes some of the skills that can be developed by participating as a set member as follows: proactivity (a tendency to initiate action); skills in organisational politics; resilience and perseverance; self-belief; belief in others; empathy; credulous listening; ability to give – help, advice, assistance; questioning; supporting ; challenging; willingness to support outside the set. In addition to these, O’Hara *et al* (2004) suggested that in order for sets to become self-managing, members need to develop: questioning skills; active listening skills; the ability to give and receive feedback; an understanding of group process; creative problem solving skills; the skill of reflection; understanding the process of learning.

The development of these skills would indeed help set members to become sustainable for the longer term self management.

Women in Construction in the North West, UK

Leyland and East Lancashire Women in Construction

The gender agenda has also been reflected in the activities of the Lancashire Constructing Excellence Best Practice Club. In 2005, Business Link Lancashire decided to set up business support groups for women in construction. This was in response to a group of women who could not attend the Best Practice Club meetings which were held in the evenings, due to family commitments. The flexibility of meeting over lunch proved more accessible to them and thus the first group was launched. Resources to run the groups and knowledge of Action Learning facilitation, however, proved to be a challenge. Following discussions with the Project Co-ordinator for the Construction Knowledge Exchange North West (CKENW), it was agreed that CKENW would continue to run the project and take forward groups in Leyland and Lancaster.

The Leyland Group has a membership of 40 (although all members do not attend every meeting) and meets every six weeks at the Golf Club to network, share issues and solutions and to agree actions which they then address before the next meeting. The initial meetings discussed took place over lunch and offered the opportunity to discuss common issues faced by the industry such as the recruitment of staff. Later in 2005, an East Lancashire Group was formed but in order to maximise efforts and funding, a decision was taken to merge the two groups and form the Lancashire Women in Construction. In 2006, the format of the groups was modified slightly to run for two hours over lunch. The first hour included a presentation from a business expert on subject areas such as:

- The Inland Revenue CIS (Construction Industry Scheme) - update on the changes to taxation for subcontractors,
- Advisory Conciliation and Arbitration Service (ACAS) - support on employment legislation,
- Construction Skills Training Plans – The available training plans, and
- Recruitment - Getting the most from your Recruitment Consultant

The various presentations were then followed by lunch when networking would take place, participants would engage in an Action Learning open forum and agree to take action on any issues raised.

Women in Construction Lancaster

This group has a membership of 15 and meets over breakfast or lunch on a monthly basis at various locations in the Garstang area of Lancaster, the meetings working equally well with a “full house” or with a small number of members. Members meet to network, share ideas and issues surrounding their working practices, therefore offering them the opportunity to learn from each other and improve their knowledge, which they can then use in their roles and make a

difference to their businesses. The group decided to structure their meetings in the following way: the first hour of the meeting involves a presentation from an industry expert on a topic of their choice. So far, these have been from:

- Business Link on Employment issues,
- Business Link on a Diagnostic Tool to help businesses examine their performance and compare themselves to similar businesses for business improvement
- The Inland Revenue on the new Construction Industry Scheme which came into operation in April 2007
- ACAS (Advisory, Conciliation and Arbitration Service) on employment and contract issues
- A Health and Safety manager from one of the member companies
- A local Insurance Broker on construction specific issues surrounding insurance
- Personal development

Members are given the opportunity to submit questions to the speakers in advance of the meetings so that maximum benefit can be gained from covering the specific issues they wish to be addressed. Once the presentation has taken place, the group can then question the speaker and the final hour of the meeting then offers the opportunity for an open Action Learning session and networking. Issues discussed during these meetings have ranged from appraisal and company systems, employment / staffing problems, recruitment issues and Christmas bonus / reward schemes.

Women in Construction Cheshire, Warrington and Wirral

Following on from the success of the Lancashire women in construction groups, the NWDA provided further funding for two more women's groups in the North West's construction sector. The Cheshire, Warrington and Wirral women in construction group was formed in March 2007 in collaboration with ConstructionSkills North West. They have a mixed membership of 20 women from Small to Medium and Large construction companies in the group which makes for a more diverse level of skills and experience. They have met on a monthly basis, again over lunch, and discussed issues such as employment legislation with the help of a presentation from ACAS, Health and Safety issues presented by one of the group members who is the Health and Safety Manager for a national house builder and they have worked together in a workshop on working with confidence, which was delivered by an experienced Action Learning facilitator and trainer. They have also held open forum discussions at their meetings and discussed issues such as redundancy and sub-contractor agreements. The meetings tend to take on a more traditional Action Learning approach when the group is small and there are around 6 members present with the larger groups working better with the more structured approach of presentations.

Joint Women in Construction North West Meetings

In April 2006 and September 2007, the Lancaster group joined forces with the Leyland and East Lancashire Women in Construction groups and met at Leyland Golf Club. The purpose of these joint events is to bring all the groups together for wider networking and to give the women the opportunity to share experiences on construction industry issues, in what is predominantly a man's world. The most recent meeting focussed on time management, techniques, tools and tips

in a structured workshop which was delivered by an experienced Action Learning facilitator and trainer. A key action of the Construction Knowledge Exchange North West is to engage more females from across the region in existing and new women's groups. Future meetings will focus largely on personal development, with business updates when appropriate. Because the CKE North West meet regularly and share information and progress on the women in construction groups, they are able to share ideas on speakers for meetings. This collaborative approach of working together in the women in construction Innovation Circles has proved to be very effective in sharing good practice.

Benefits of joining a Women in Construction Innovation Circle

Action Learning is just one of many learning techniques used in management development, some being work-based and others involving formal training and qualifications. Action Learning is less structured in its approach to management learning and this flexible approach to learning is certainly an attraction to busy entrepreneurs and managers, some of whom have never been in a classroom since their teens but have gone on to run very successful businesses. It helps break down the barriers between universities and businesses, helping each to understand better what businesses want and what universities need to provide.

One of the outcomes from the women in construction groups in the North West has been mentoring between group members. An example of this was when one of the more experienced group members mentored another group member in helping her to gain her Health and Safety qualifications. Other members from the Innovation Circles have also shared their expertise in areas which had been identified by the group for topics of discussion (e.g. time management, risk assessment) and presented their experiences to the group. Occasionally, they have requested expertise be brought in from outside of the group and therefore, experienced consultants were funded by the project to present on topics ranging from dealing with difficult people to managing discipline and grievances.

As part of an ongoing evaluation process of the Innovation Circles, members were asked the following questions: When you joined, what did you hope to get from being a Circle member? What for you is/was the best thing about being a Circle member? What is the most positive outcome for you or your organisation? These are a selection of responses from group members:

“The meetings have been a great help especially since the University became involved and structured the meetings in a more productive/informative manner, with presentations. I enjoy the meetings greatly because it's all women who do what I do, who have the same concerns/grievances/problems in a very male dominated industry. Therefore, the meetings are a good discussion forum and it's reassuring to know that issues can be discussed in a fairly discrete way. The meetings are a good way of asking opinions on how others may tackle a certain problem, or a good way of finding out how others may put certain procedures into place.”

“The speakers have been very informative and it has been helpful to share ideas and learn from others in the group”.

“The activities are geared very much towards needs of the members, and the informal nature of group means that the information took on a richer form.”

“I thought the most valuable thing about the Innovation Circle was that there were people there who were linked to other organisations which made it interesting to see other people’s approaches.”

“I really enjoyed the interaction within the group, improving my awareness around the key issues we were discussing.”

“It was mainly the networking opportunities - Meeting other women in similar roles or in similar companies and the sharing of ideas, that was very important to me. Also being able to say - What do you do about a particular problem?”

“What I liked best was people realising that they had shared problems then talking through the options with others. I think it’s a very good way of sharing knowledge.

“Being able to ask for advice from people in a similar job.”

“Honestly, it was being able to help and guide other people... I was happy giving assistance. Some time in the future we may need to take assistance off those better situated than us.”

“We’re being actively involved in the issues and so keeping ahead of the field. That’s the great advantage.”

Over 75 women have now been engaged in women in construction Innovation Circles throughout the North West. A new group is also planned for March 2008 around the theme of women leaders in construction. Through a further initiative, the Women into Work Project in partnership with ConstructionSkills, CKENW is exploring further the issues of expansion and retention of members within the groups. Further research will be carried out to investigate the longer term benefits of women taking part in these Innovation Circles, looking particularly at how the groups have helped with their personal development and possible progression on the career ladder, along with any impact on the recruitment and retention of women in the industry.

The National Perspective

From the earliest objective setting of the Construction Knowledge Exchange (CKE) it was agreed that the Action Learning set format for Innovation Circles would serve as the engine room of activity. The CKE aimed to approach the issue of industry-academic engagement from a demand led perspective. Traditionally, Higher Education has pushed the knowledge gleaned from research expertise and sought to apply it within an industrial context. Conversely, the CKE philosophy is to pull in information that is needed by the sector it supplies, the Innovation Circle

being the round table opportunity for those with a shared interest or issue to develop actions that are relevant to their needs.

The national CKE is devolved into five specific areas of regional activity each having a co-ordinator who is responsible for the delivery of knowledge transfer based outputs to the National Project Director, based at the University of Salford. These regional co-ordinators are based at The University of Central Lancashire (North West), Leeds Metropolitan University (Yorkshire and North East region), The University of Wolverhampton (West Midlands region), The University of West of England (South West region) and London South Bank University (London and South East).

The project co-ordinators are from a range of both commercial and academic backgrounds, some are subject specialists, some are non-cognate and they bring a considerable breadth of knowledge and experience to the project. Synergies in approach, combined with areas of experience and interest, have meant a growing collaboration between the North West and Yorkshire co-ordinators. In sharing a marketing background, the two co-ordinators are looking at providing a fresh approach into how the women in construction meetings can reach new members within the North West and how this can be rolled out as a new Innovation Circle within the Yorkshire and North East region.

From the founding of the national project, it was believed an internal Action Learning set for the co-ordinators would be positive and beneficial to ensure they acted as a learning organisation themselves. It provided an opportunity for co-ordinators to initially discuss issues that ranged from the logistical and procedural matters that govern any project in its infancy to the more detailed aspects of running Innovation Circles and Action Learning facilitation.

Operationally, the monthly meetings provided an opportunity for co-ordinators to discuss issues relating to their specified project objectives. All co-ordinators had the same set of deliverables to achieve and so their progress in realising targets formed a significant part of the meeting discussions. The partners focused upon not just how they were meeting their targets but how effectively they were achieving these and whether there were more efficient means of reaching the same end result. Good practices were shared and issues that often reassured others they were not working in isolation were raised in an environment where co-ordinators felt comfortable in airing them.

The linkages developed within each region were quite divergent. Both the West Midlands and South West regions had strong links to the Construction Best Practice clubs which were run by Constructing Excellence (CE) and thus the contacts developed here were utilised in ongoing CKE activities. The Yorkshire region benefited well from its long standing relationship with the Royal Institution of Chartered Surveyors (RICS). Sometimes it has not been easy to penetrate and make suitable connections within large organisations such as ConstructionSkills, where a complex regional and national structure exists, however, the sharing of approaches, where regionally this had already occurred, assisted those still seeking to make similar collaborations.

The ethos of the CKE is relationship enabled engagement and the strong relationships that have been developed from steering group level nationally through to regional operations has

demonstrated some degree of transferability. An example of this is a consultant who was the chair of the Best Practice group in Central London and he had established a strong working relationship with South Bank's regional co-ordinator. He was a well regarded facilitator of several Innovation Circles and as a result of his relocation to the West Midlands, the gap that needed filling for a facilitation role within an Innovation Circle from the Wolverhampton hub was met after this was raised at a project co-ordinator's meeting.

Regions have chosen to operate Innovation Circles differently. Some have opted to pursue their own interest in Action Learning and its methodology and facilitate meetings themselves and some have chosen to operate them using specialist facilitators. At project delivery level, this has worked particularly effectively and where external facilitators have been engaged, there has been frequent briefing, feedback and evaluation from the co-ordinators themselves.

The Construction Knowledge Exchange is one of 22 centrally funded initiatives aimed at developing knowledge transfer. In sharing the good practice of the internal Action Learning set, the CKE cascaded its Action Learning based approach at a National Knowledge Conference in February 2007 and as a result, had members from other Knowledge Exchanges observe a subsequent project co-ordinators meeting. There was such support from one Knowledge Exchange that CKE Action Learning facilitators were invited to facilitate sets in order to underpin a similar methodology being adopted. This has helped Knowledge Exchanges to share Best Practice and has increased the number of people being mentored as facilitators.

The gender agenda is of interest to the project at national level, via the internal Action Learning set that has regularly discussed the progress of the Lancashire based women in construction Innovation Circles facilitated by the North West regional co-ordinator and the national project co-ordinator. As case studies of good practice for both their methodology and objectives, the Lancashire women in construction meetings have energised other co-ordinators to introduce this area to the meetings they already offer in their regions. As a result of this, the Yorkshire and North East region will roll a new women in construction Innovation Circle out as part of its Year 4 deliverables. The London and South East Hub is working with a facilitator and again will incorporate a gender-focused Action Learning set as part of its Year 4 targets.

Conclusions

Working with women in construction in these Innovation Circles has enabled the Construction Knowledge Exchange North West to learn some generic lessons for their design and operation. This action-based approach offers businesses a new dimension from the normal events and assistance offered by partner organisations. The group members have decided upon a more structured approach to their meetings as opposed to the more traditional Action Learning way of working together but once the women became more confident with each other, they worked equally well within an Action Learning open forum when they chose to do so.

It has also to be noted that in the early days of group formations, the members tended to stick to topics surrounding the construction industry but have more recently moved onto to a personal development programme to include such topics as assertiveness, working with confidence,

creating a positive image, maintaining motivation, managing third parties and personal effectiveness. Further business development themes such as completing pre-qualification questionnaires and Investors in People are also planned for future discussions within the groups. This has evolved as a result of a more confident membership by working together in this collaborative way and some who lacked confidence in the earlier meetings are now ready to acknowledge the importance of their roles within their companies.

It is essential that facilitators of the groups regularly re-visit the aims and objectives of the group with members for continued success of the Innovation Circles and joint meetings have been organised for wider networking support and sharing of issues within the industry sector. More in-depth research is also ongoing to examine the longer-term benefits of women in construction taking part in these Innovation Circles and will be particularly focussed on whether they have any links to retention and recruitment of women within the construction industry. These findings will be reported in a future paper.

Innovation Circles offer businesses the time and space much needed for reflection and encourages them to work in a more innovative way. They produce creative solutions, enabling them to gain a greater understanding of their problems via penetrating questions and continuous improvement. They can be aligned to individual practice or more generic collective issues of the industry. The Women in Construction Innovation Circles provide members with an excellent challenge – they already have a wide knowledge and are experienced in their own field of work – they are their own “experts”.

The women in construction Innovation Circles have provided a safe setting within which these women in this male dominated industry can confidently reflect on their business issues confidentially, facilitated by an employee of the university. This has been well received throughout the North West of England and has helped to promote a culture of continuous learning and development for the women within these organisations.

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