

the future is

FEMALE



A good practice guide to recruiting and
retaining women in non-traditional
Further Education courses in Wales

foreword

This guide reflects almost four years of partnership work between JIVE and three further education colleges in Wales to boost their recruitment and support of women in traditionally male-dominated subject areas such as design and technology, electronics, engineering and the built environment.

JIVE (*Joining Policy Joining Practice*) is a UK-wide partnership that aims to challenge the under-representation of women in science, engineering, and technology (SET). It is led by the UK Resource Centre for Women in SET, a centrally funded Government initiative. JIVE in Wales consists of a small team at the Wales Resource Centre for Women in SET (WRC) located in the Women's Workshop, a long-established and award winning training centre in Cardiff Bay.

The guide sets out an overview of the progress achieved in Wales, then takes a more detailed look at the individual colleges and the actions they have taken in partnership with JIVE.

If you work in FE in Wales, we hope it will inspire you to make contact with JIVE and work with us to bring about positive gender change in your college. Or you may already be pioneering female participation - in which case we would like to hear what you are doing and learn from your experience.

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the skills gap

Science, engineering and technology (SET) vocational study in further education is overwhelmingly split along gender lines. Boys are massively in the majority in areas like plumbing, building, electronics and technical design, while girls proliferate in hairdressing, beauty and in arts courses. In 2004, for example, just 5.2 per cent of students on construction courses in English FE colleges were female. (Source: ILR)

Meanwhile, there are skill shortages in the Welsh jobs market in SET areas. The Welsh Assembly and UK governments both see the skills gap as a constraint on national performance in the global economy.

The booming UK construction sector alone needs at least 88,000 recruits a year to meet its growing needs, while trade sector employers report increasing demand for female staff to provide an acceptable service to ethnic minorities, the elderly and many other customer groups.

Geoff Walsh, Head of Construction at Coleg Gwent says: *"We are picking up a growing demand from local authorities who actively want female tradespeople to carry out work in the homes of vulnerable tenants."*

Research commissioned in 2006 by *Construction Skills*, the sector skills council for the industry, among 2,400 11-18 year-old girls found that 62 per cent would be happy to work in male dominated industries but 70 per cent felt there was a gender bias against girls in the careers advice they were given.



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barriers women face

In such a climate, FE colleges have a golden opportunity to meet industrial demand by training women in trades they have not traditionally taken up. Yet although women who opt for FE SET courses have a lot to offer, JIVE's experience is that they also face a host of challenges that their male counterparts do not, and it is essential to provide them with appropriate support before, during and after their studies to ensure that they sustain enough momentum to enter their chosen trades.

Some of the barriers women trainees are likely to face include:

- Lack of confidence
- Gender biased careers guidance
- Isolation – being a woman in a 'man's world'
- Resistance from families/ partners
- Pressure from family and child care responsibilities
- Difficulties finding and retaining placements
- Harassment in college and at work
- Workplace and college cultures that can seem hostile, eg: practical jokes, swearing

JIVE interventions and partnerships with three Welsh FE colleges over four years have shown that these barriers can be overcome, change is possible, and that demonstrable benefits can be gained for the colleges, staff, students, local employers and individual learners as a result.

what works

JIVE has made progress by building long-term relationships with key staff in colleges rather than running one-off events. Both SET lecturers and senior managers need to be 'on board' and actively involved with action planning at all stages.

The actions that have had the most positive impact include:

- Gender awareness training for lecturers in SET areas
- Culture analysis work with staff and students
- Setting up women only courses with free childcare and support
- Providing female mentors for women trainees and new workers
- Presenting positive images of SET women students on college publicity
- Creating links with local schools and girls-only taster days



case study 1: Swansea College



Swansea College is one of the largest FE institutions in South West Wales and trains at least 2,000 full time and 12,000 part time students in five sites. The college offers a wide range of vocational courses and a thriving Modern Apprenticeship programme alongside a full academic portfolio. More than 20 different occupational routes are offered up to NVQ Level 3 or higher. Its Engineering, IT and Technology department is located on the Tycoch Campus in the Sketty area of the city.

Contact between the college and JIVE was established in 2004 when electronics lecturer Steve Williams attended a Gender Equality Awareness training session in Swansea run by staff from the UK Resource Centre for Women in SET.

motivation

This case study is an example of how one individual can bring about real change in an organisation by being a self-appointed Gender Equality Champion. Steve Williams is someone who took on that challenge, a role fostered by his ongoing working relationships with JIVE.

Personally, he was motivated as a father who wanted to contribute towards a fairer career future for his daughter as well as his two sons. Professionally, he saw evidence all around him of the impact of SET training on women's lives:

"Without skills training, women in electronics are often stuck in factories as lowly-paid operators. With training, they can really boost

their earning power and have a more interesting job by becoming electronic engineers – and good ones, too."

Steve brought gender equality into the spotlight at his college, where it was taken up at departmental, board and principal level. As a result, JIVE and Swansea College have had a long and ongoing partnership which has yielded many positive outcomes.

culture analysis

The Cultural Analysis Tool (CAT) is a unique resource devised by the UK Resource Centre for Women in SET and JIVE Partners.

"CAT is a questionnaire designed to assess workplace cultures and how they affect gender equality," explains Milada Williams, JIVE's employer liaison manager.

"The survey assesses both 'hard' tangible factors like conditions and policies as well as 'softer' (less tangible) factors that affect how women feel in the workplace."

With the support of a working party consisting of the Swansea College principal, HR manager, director of Engineering, IT and Technology, diversity officer and quality manager, the CAT survey was sent out to approximately 150 staff members in January 2006.

Many of the results were very positive, but there were key areas designated for improvement. These were presented to the working party in March 2006 in the form of an action plan, which highlighted the need for:

- Gender awareness Training among staff in Engineering, IT and Technology (EIT)
- Boosting female recruitment to SET courses
- Mentoring schemes for female staff in EIT

Other recommendations from the CAT in areas such as working environment and policy implementation have been followed up by JIVE by working closely with Swansea College to advise on issues such as work-life balance, gender neutral language and workplace culture, including inclusive environments for learning and working, childcare issues and health and safety issues specifically relevant to women working in a traditionally male environment.

A gender equality focus group of women staff in EIT was convened in the wake of the CAT and feedback relayed directly back to the director of HR and the departmental head.

College diversity officer Jane John has accessed resources from GERI (*Gender Equality Race and Inclusiveness*) to enable regular diversity awareness sessions to be delivered to students. In addition, every International Women's Day, the college now holds annual 'gender course swap' days where students of hairdressing and beauty change places with trainees in plumbing, electronics and motor mechanics.



gender equality awareness

Gender Equality Awareness training was made available to all lecturers in the department in 2004 and again in 2006. It was delivered by UKRC staff from a purpose-designed template called '*Let's Twist*'.

The course invites participants to examine their practices regarding gender neutral language, stereotypical behaviour, assumptions, teaching style and inclusive culture.

mentoring

One key element of support that JIVE is able to offer women SET teaching staff is the opportunity to gain much-needed support from each other. The first step is to arrange training in mentoring competencies. All female Swansea lecturers in EIT have now been provided with training specifically tailored to inspire, motivate and retain women within the industry, designed by the UK Resource Centre for Women in SET.

"The training focuses women on planning their careers and thinking through problems before they arise," says JIVE mentoring manager Cath Leggett.

"It's an opportunity for them to think about setting time goals, developing listening and communication skills and the importance of work/life balance and networking.

Ideally, each woman would have her own mentor, but where this is not possible, peer mentoring (mentoring each other) is the best solution."

A peer mentoring group has now been firmly established in Swansea College and meets on a regular basis. In addition, some mentors and mentees have been individually paired, so that women who are more experienced can support women at earlier stages in their careers.

Going forward, the focus for mentoring will extend to female students in SET subjects and it is hoped that initial training will begin in the coming year. All women trainees in the department already receive an induction from JIVE staff including a resource pack about networks for women in trades and gender equality.



boosting female recruitment to SET courses

By 2006, JIVE was offering advice to Steve Williams and his colleagues on designing taster days at the college exclusively for girls in their last two years at school, to encourage them to consider courses in the Engineering, IT and Technology department.

Two members of the team, whose own background is in engineering, helped deliver the taster days and gave talks to the girls, who also had the opportunity to sample hands-on plumbing, electronics and motor mechanics.

Steve made it his business to work collaboratively with schools, careers advisers, employers and gender equality organisations to get the message out about his department's positive attitude to female trainees.

"It's not good enough to put posters on the wall or send out leaflets. You've got to get out there and talk to people and give them a chance to have a go," he says.

One immediate impact of the taster days in one local comprehensive was to boost the numbers of girls choosing Design and Technology System Control for GCSE from two to over 20.

The events were also the genesis for the idea of a free, women only taster event on Digital Aerial Installation, which was held at The Women's Workshop in July 2006 and recruited and promoted by JIVE. The enthusiastic take-up of this event by women from very diverse backgrounds, led to JIVE and Swansea College collaborating to offer a full, all women course in the subject.



Digital Aerial Installation Course

In the run-up to the phased switchover from analogue to digital TV by 2009, there is massive demand for qualified technicians to install the necessary digital aerials

In 2006 there were no women in Britain qualified to carry out digital aerial installation. The JIVE/Swansea College course offered women the chance to study for their City & Guilds 6958 (Electronics/Electrical Servicing Technician) and 2218 (Digital Aerial Installation) every Friday in the woman-friendly environment of the Women's Workshop.

JIVE ran an active recruitment campaign, and ten women were enrolled to start the course, which ran from September 2006 to May 2007. The tutor was Steve Williams, who donated his free time to teach the course.

"The group came from a wide range of ages, cultures and backgrounds. Many had to overcome significant barriers to learning with our support,"

said JIVE course coordinator, Cath Leggett, who trained the women in mentoring competencies and initiated both a peer mentoring circle and one-to-one mentoring relationships. Links were forged with organisations such as Genesis, to offer practical support with childcare.

JIVE also developed a virtual, interactive learning environment to support the work in class. The Workshop roof was used to prepare the trainees for the high-level work that awaited them.

Of the women who enrolled, six undertook the NVQ Level 2 Certificate in Digital Television Aerial Installation and passed, becoming the first women in Wales to do so, and among the first in the UK.

The JIVE team then arranged work experience opportunities for the women, and supported them as they made the transition from classroom to work. One woman is now employed by *Elite Aerials* in Swansea and has become a valued part of the team. Another is using her electronics expertise in commissioning alarm systems for *Safer Cardiff*. Several women have returned for the second year NVQ 2 Digital Aerial Installation course now in progress at the Workshop. JIVE is continuing to work with employers in Cardiff to create work experience opportunities for women on the course.

Second year trainee Kelly Baldi says:

"I would never have done this course if it hadn't been women-only. It's been great – we support each other and work hard."

Now...

Swansea College and Steve Williams foresee an ongoing partnership with JIVE, whose support is seen as an highly valuable asset. and it is hoped to 'mainstream' the idea of women only courses into the College in due course by running a similar set of courses on the Tychoch campus in Swansea.

key achievements:

- A tenfold increase in the uptake of Design and Technology GCSE courses at one comprehensive, from 2 to 20
- An almost threefold rise in the number of women studying Engineering full time in the Department – from 5 in 2005/6 to 14 in 2006/7
- 2% more women part timers studying Engineering – from 6% in 2005/6 to 8% in 2007/8
- Seven women trained as Digital Aerial Installers, among the first in the UK
- Mentoring scheme established for women SET lecturers

case study 2:

Pembrokeshire College



Pembrokeshire College is the county's largest provider of a wide range of post-16 education, training and other services and is situated in a modern, purpose-built campus in Haverfordwest. The college teaches about 2,000 full-time and 8,000 part-time students and employs over 700 staff.

JIVE began working with Pembrokeshire College in March 2005, when team members approached and met with Richard Bamber, Head of Technology. The relationship was sustained intensively for 18 months and is ongoing.

motivation

The College was interested in working with JIVE to find ways of boosting the recruitment, retention and progression of female students and staff within the faculty.

culture analysis

CAT was circulated to all 200 staff at Pembrokeshire College and the results reported to senior management in November 2006. The key recommendations included:

- Showcasing successful female students as role models
- Introducing a mentoring scheme
- Positive action initiatives

showcasing successful female students as role models

JIVE had already met with the college's department heads of technology and marketing in the spring term of 2006 to offer advice, and subsequently provided electronic images of women working in SET and positive role model posters to display around the college.

In the wake of the CAT recommendations, the college's already pro-active marketing department was lent renewed impetus, and significant efforts have been made to publicise positive role models.

Photographs of women studying science, plumbing and construction were commissioned and subsequently displayed and used in press releases, leaflets and prospectuses. A special leaflet focusing on women (including an engineer) in the local energy industry was produced for prospective students. Several articles about SET students and women in technology have been



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positive action initiatives

JIVE recommended that the College link with local schools, and careers advisors/teachers to identify year 11 students with an interest or aptitude for SET, and organise girls-only taster days which would be actively promoted in the community. Two presentations have so far been made in local schools about careers in construction, which, although they were mixed sex events, did strive to present many positive images in women in trades.

Attempts have been made to recruit for a women-only plumbing course, but so far it has not been possible to attract sufficient numbers of students.

generated in the regional press. An 'I Love...' tee-shirt campaign was run among students to boost pride in study subject areas.

These initiatives contributed to a rise of almost 50 per cent in the numbers of women studying SET subjects at the college – up from 15 in 2004/5 to 22 in 2006/7.

mentoring

A programme of training in mentoring competencies was delivered by JIVE over a period of a year (2005/6) to 20 female students, including women in HE and FE, first and second year students, across a range of courses. There is now an established peer mentoring group at the college, made up of women who have received mentoring training and convened by JIVE mentoring co-ordinator Cath Leggett.

Cath says: *"The long term aim is to make this group a self-sustaining and embedded mentoring scheme and to develop networks to support future female members of staff."*

Now...

JIVE plans to take forward its relationship with the College by offering gender awareness training to staff and working with the HR department to attract more female applicants to SET posts, including promotion of flexible/part time and jobshare opportunities.

key achievements:

- 50% more women studying SET subjects
- Mentoring support for female SET students
- More positive publicity about good role models

case study 3: Coleg Gwent

Coleg Gwent

Coleg Gwent (Gwent College) is Wales' largest further education college. It has more than 35,000 students ranging from school leavers to mature students and offers a wide range of part-time and full-time academic and vocational courses.

In September 2004, JIVE worked with Coleg Gwent to set up the first ever women-only NVQ plumbing course in South Wales.

The course was free, trainees' travel and childcare costs were paid and each was provided with a set of the required tools and textbooks.

motivation

Coleg Gwent's Construction department saw an opportunity to meet increasing employer demand for female plumbers, against a background of applications for their conventional plumbing courses being overwhelmingly male. There is also a shortage of plumbers in Wales - Construction Skills estimates that at least 1,350 new plumbers need to be recruited in the next three years to cover the skills gap.

the women's plumbing course

By the start of the autumn 2004 term, JIVE had helped recruit 14 women to start the NVQ 2 Plumbing course at the college's Pontypool campus.

This course normally takes two years to complete, but the highly motivated women recruits completed it in just 15 months.

Tutor Dave Gower commented; *"The female students had a different approach to the male ones – much more ready to work, very self motivated, polite, courteous and no discipline problems. They kept me on my toes and absorbed information like sponges!"*

Another tutor, Steve Mitchell, said: *"They felt their work needed to be of a high standard to show the traditional male-only groups they were as good, if not better than them. The whole group achieved all three main key skills to a high standard – they were the best trainees I have taught."*

Of 14 women trained, nine successfully completed the course and gained their NVQ 2 – a creditable 65 per cent. Head of Construction Geoff Walsh commented: *"The attainment rate on the women only course was well above average. All the tutors were struck by how highly motivated the women were, and how quickly they learned."*



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Eight of the nine are now working plumbers. Several have sought further qualifications such as NVQ 3, gas fitting training and modern apprenticeships.

Steph Jones was aged 45 when she joined the course. *“I had always wanted to be a plumber, but I never even mentioned it to anyone because it seemed so impossible at the time,”* she says.

“It hasn’t all been plain sailing – I was banned from sharing a van with a workmate on one placement because his wife complained about him being teamed with a woman!”

Steph has now joined forces with four other tradeswomen to form a co-operative enterprise which is attracting business from all over South Wales.

In the wake of the course, there has been a heightened awareness within Coleg Gwent of what women trainees are capable of, in terms of non-traditional courses. The college made use of positive images of the trainees in presentations, displays and prospectuses and is currently training female plasterers, painters and decorators.

mentoring and support

All trainees were given mentoring training, individual entrepreneurial advice and signposting to trade organisations for women. The women formed a network which eased their transition from training to work.

Individuals from the group are being encouraged to participate in wider mentoring networks and keep in touch with JIVE about their progress and achievements.

staff training

JIVE delivered gender awareness training prior to the start of the women-only course, not only to staff preparing to tutor the women, but to the whole department – about 25 people. The head of department felt this had a positive impact on the construction teaching team and fostered the college’s wider goal of creating a training environment as opposed to a “building site mentality”.

Now...

Discussions are under way between Coleg Gwent and University of Wales College Newport to run joint taster days with Coleg Gwent in local schools to raise awareness among teenagers of both sexes of a range of career options beyond the traditional mould of construction for boys and hair and beauty for girls.

key achievements:

- Nine women plumbers trained in first course of its kind in Wales
- 25 SET teaching staff trained in gender awareness