

Let's TWIST: Creating a Conducive Learning Environment for Women*

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This paper describes the innovative staff development training offered by the Let's TWIST project, a European funded project aimed at widening participation of women studying, training and working in engineering, construction and technology. The training targets lecturers of engineering, construction and technology subjects in further and higher education across the UK and in Portugal. The training programme examines and shares the necessary components for creating a conducive learning environment for women. It examines the learning styles of women, curriculum content, recruitment and marketing and pedagogical practice that enhances self-esteem and confidence. The training material draws on the experience of female students nationally, and utilises the wide range and depth of the experiences of women lecturers from the project, in order to mainstream good practice. This article explores the impact the staff development training has had on the lecturers.

INTRODUCTION

THE 'LET'S TWIST' (Train Women in Science and Technology) project aims to increase the recruitment, retention and progression success of women in engineering and construction. Let's TWIST has a centre of excellence at Bradford College and one under development at Sheffield Hallam University in the UK. Let's TWIST was established with European Social Fund Employment NOW funding from 1998 to 2000. During this time Let's TWIST worked with additional UK and European partners from France, Portugal and Spain. Subsequent European and other funding is enabling Let's TWIST to continue its cutting edge work in this field.

The representatives who work on Let's TWIST are predominantly women who have a background in either engineering, construction or equal opportunities and who have considerable experience in training and educating women in non-traditional areas.

Let's TWIST offers a diverse range of activities from staff development training; promoting careers in engineering and construction; working with school girls, women students and returners; co-ordinating an extensive mentoring network; consultancy and advice to organisations and employers as well as research and development.

It is the staff development work that was developed and piloted during the period of 1998–2000 which forms the focus of this article. This important aspect of the work of Let's TWIST is

continuing to be mainstreamed and has increasing support from National Training Organisations in the UK.

STAFF DEVELOPMENT RATIONALE

One of the key areas of work of Let's TWIST is to transfer good practice in women's education and training into the mainstream, thus working to improve the quality and standard of teaching delivery throughout non-traditional education for women. Training is offered in a variety of ways from a two-day residential to half days. The length of time is generally dictated by staff availability.

The training is designed in packages that can be adapted to meet the needs of individual institutions or provide a general staff development training course to raise awareness. The training materials are available in a complete modular training pack (to be delivered by approved trainers only). Learning is accredited to Level 3 through the Open College Network system. The project is looking to gain further accreditation at higher levels in teacher training, and at postgraduate teaching staff development.

The main focus of the training is on inclusive learning, that is how to attract and how to retain women on courses, based on good practice from various initiatives in the engineering, construction and technology sectors of education and training. Those taking part in the training:

- hear what women say they want from education and training and how best those needs can be met;

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- explore the issues which can prevent women from entering education or training;
- discuss the role lecturers play in enhancing the learning experience for women;
- raise awareness to attitudes which can impede learning and disadvantage women;
- share good practice with the trainers and delegates;
- discuss the best ways of tackling real problems in day to day teaching covering issues such as harassment and stereotyping;
- develop action plans to take forward the work into their own institutions.

The materials

Let's TWIST have developed a range of training exercises including:

- *What it feels like to be a woman*—participants are asked to imagine how a woman might feel who is coming to their institution for the first day of a course in a male dominated area. What will her thoughts be, what if she has children and other responsibilities, what if she has been out of education for a time? This exercise enables participants to see their own institution in a different light—the gang of youths outside the front door, the domestic responsibilities to think about, the lack of confidence etc.
- *Case studies*—the case studies are problem-solving activities that enable participants to share their understanding of the problem and solutions, often drawing on their own experience.
- *Mornin' Lads* – a video made by Let's TWIST documents the training and education experiences of women across the country, talking frankly about issues that they would not normally discuss with tutors. The material produced so far examines culture and attitudes, teaching and learning, childcare, women as role models and good practice. In addition there is a case study section where women recount specific incidents either in the training environment or workplace. It is a hard-hitting documentary that has caused a reaction whenever shown. The reactions have ranged from clear identification with what the women are saying (mostly women lecturers) to denial that this exists anywhere (some male lecturers). It is certainly upsetting and thought-provoking and needs to be handled sensitively. A Good Practice video short, which extracts some of the positive experiences, can be used to give perspective. Many participants in the training (mainly male lecturers) have asked to hear what women say, and the video lets them hear for themselves. Once the initial reactions have been worked through, participants have so far taken it on board and worked constructively through the training.
- *Inclusive learning exercises*—a range of exercises that give delegates the opportunity to bring together previous learning. Exploring issues of creating an inclusive curriculum, classroom

management, support, environmental and institutional barriers, teaching and learning relevant to target group, assessment, stepping stones to other courses.

- *The Conducive Learning Environment*—an illustrative model that includes the many and varied aspects that contribute to making the learning environment welcoming to women.
- *Resources for participants to take away*—include facts and figures about the UK and Europe; twenty ways to make your teaching more women friendly; reading lists; examples of good publicity materials and posters; and a Good Practice Guide.

EVALUATION

The evaluation of the staff development training was conducted by an external project evaluator, who surveyed the participants immediately after attending the training and also six months later.

Evaluation with the participants in the training took the form of two questionnaires with open-ended questions leading to qualitative rather than statistical analysis. One was given at the end of the training day to evaluate participant's responses to the training as well as perceptions of the value and usefulness of the training materials themselves. A further questionnaire was sent out to participants six months after they attended the training in order to evaluate its long-term impact on delivery practice.

Questionnaires were completed or other feedback provided by all participants still present in the final session of each event, i.e. almost all of the 153 participants. Evaluation attention was focused particularly on feedback from three nationally advertised events (two targeting further education and one higher education in the UK) and one course in Portugal. Forty-seven responses were obtained from 52 participants.

Twenty-seven responses were received to the follow-up questionnaire.

SUMMARY OF EVALUATION FINDINGS

A large majority of respondents felt that the Let's TWIST training had been useful, and a majority had either not come across other examples of similar materials, training events and opportunities, or had only encountered further developments generated by the Let's TWIST project itself. This suggests either a real lack of this kind of material and training opportunities, or inadequate targeting and dissemination of that which does exist. It also highlights the value and innovatory nature of the Let's TWIST project.

Most frequently noted benefits were learning more about women's perceptions and experiences (including the use of case studies and video), and

sharing ideas with others. The emphasis on hearing women's voices reinforces the value of the video produced by the project team, which can be seen as both an innovative and effective part of the training package.

There were a variety of issues which participants would like to see covered in such training, with no one consistent theme. This suggested the value of building flexibility and targeting into the training package to cater for the needs of particular individuals/institutions, and this was the approach adopted by the project team in preparing a modular training package.

Overall, very few respondents identified areas of the training programme which they had not found useful. Some participants in the initial pilot had not found 'the more general aspects of good teaching practice' useful, but the project team feels that these are important, since practices which cause women to feel uncomfortable can have a similar effect on all students. This emphasis on staff development leading to the creation of conducive learning environments, instead of focusing attention on what women need to do to succeed, can be seen as an innovative aspect of the project work.

Assessment of personal benefits from attending the programme focused on raised awareness and understanding, networking, and exchange of ideas and experience. Portuguese participants also explicitly noted the value of exchanging experiences at a European level.

Personal benefits from participation were seen as also feeding into institutional practice. One participant noted that 'we can go back to our institutions with renewed vigour', and another that '(it) gives me hope to continue and not give up, even when schemes don't appear to be working'.

Suggestions from participants for how the training programme might be developed in the future included:

- the training to be expanded and made compulsory;
- staff development for careers staff in schools and local authorities, industry, managers and marketing managers within educational establishments;
- senior management or heads of departments to be involved—both to recognise the problems of teaching and to assist staff in setting up programmes.

Several of these suggestions were implemented during the life of the project. For example:

- managers and technicians were included in sessions;
- in-house training was developed in some participating institutions;
- attendance at the staff development training was mandatory for some staff and departments;
- targeted sessions, e.g. on recruitment, were delivered.

Such developments were important steps in mainstreaming project activity.

An overwhelming majority of participants favoured the continuance and extension of the programme, and felt that they had got a great deal from it. Any less favourable comments tended to be from those in the higher education sector, and focused on two main issues:

- a) a feeling that they were covering unnecessary ground;
- b) disappointment that more was not offered on recruitment.

The programme was generally highly valued and elicited comments such as 'enriching', 'enjoyable and interesting', and 'this could easily have become an interesting 3 or 4 day course'. (Shortage of time for further exploration of issues was quite frequently mentioned, but pressures on participants and difficulty in freeing up time from the workplace placed unavoidable constraints on the lengths of the programme.)

In the words of one participant:

'All the elements of this seminar are valid and of interest to all lecturers. This subject should form part of all teacher training and be a policy to support equal opportunities in further and higher education.'

And from another:

'This programme **must** be extended to **all** teacher training courses to degree level.'

EVALUATION 6 MONTHS LATER

Almost all of the 27 respondents to the follow-up questionnaires felt, some months after the event, that the training had been useful to them. Just under a quarter of respondents had been able to make specific use of the training in their work. According to one respondent, 'we are also using several of the ideas to change the culture within our college and to improve our marketing'. This respondent noted further that female students had given very positive feedback on these developments. Responses such as these suggest that the materials innovated by the project team have contributed to the mainstreaming of good practice for trainers of women in engineering, construction and technology. One respondent commented:

'It benefited my knowledge but implementing ideas is difficult once they're brought back due to male dominance in line management here . . . Academics at this institution want all the credit and therefore restrict anyone attempting to show the initiative.'

This reinforces the suggestion made by some participants that managers should also take part in this kind of staff development activity.

Despite the relatively small number naming specific implementation of ideas from the training in their subsequent work, a large majority (24 out of 27) referred to general benefits. They had taken away with them knowledge, further information,

'useful tips' and raised awareness and understanding. Some were planning future developments, utilising female lecturers; possibly changing publicity, surroundings and workwear; being more careful about getting to know the group by identifying needs or problems which may occur during the training period; following the guide for good practice, including tackling stereotyped attitudes which could have a negative impact in training.

MAINSTREAMING LET'S TWIST GOOD PRACTICE

The training events and the materials developed have made a significant contribution to mainstreaming of good practice. However, work commitments and lack of time were strongly suggested as possible deterrents to attendance on such a programme, with suggestions that institutions need to do more to make this kind of staff development possible.

'It's a waste of time and money unless people take on board the knowledge gained and allow you to implement it.'

The respondent quoted immediately above, who had earlier identified institutional constraints and lack of interest as a problem, also noted that attempts to talk with colleagues about any of the issues raised by the Let's TWIST training had met with a negative response. This again highlights the need to involve a wide range of staff in such events and to look at a range of institutional practices if change is to take place. As the project has progressed, as previously noted, some training sessions delivered in-house have involved compulsory attendance, and some have involved managers and technicians.

'EVERY member of staff should be made aware of the problems/difficulties faced by women in a predominantly male learning environment.'

Some of the suggested steps that need to be taken to ensure widespread mainstreaming of good practice are clearly not within the control of the project team, but the above responses suggest that the project has innovated materials and practices which have raised awareness, led to further developments within institutions whose staff have attended training events, and disseminated good practice far beyond the boundaries of the partner institutions.

Most respondents felt that changes within their institutions and within science, engineering, construction and technology generally, could occur as a result of the development of training programmes of this and related kinds, although words like 'eventually' and 'very slowly' were used, and one respondent added the caveat 'if people don't react to it with animosity in the first place'. Specific comments/suggestions included:

'New courses for women-only leading to . . . women staff and students on engineering courses and eventually more women on the mainstream courses.'

'Changes will take place as a result of the development within the industry as more women are encouraged to take lead roles. This opportunity will occur when more male lecturers are trained on women's needs.'

CONCLUSION

Despite this awareness of contextual constraints, and a caution about how much one programme alone could achieve, the training was seen by many participants as valuable at both individual and institutional levels. Its perceived value and its innovatory nature are highlighted by the fact that the project has been approached to offer consultancy on awareness training, and a number of organisations have been enquiring whether they can 'join' Let's TWIST or set up a similar project in their region. There has been considerable discussion within the project team about the future use of the 'Training to TWIST' printed training package beyond the life of the project. The package has been targeted at trainers who would themselves go on to deliver the staff development training, thus cascading the materials and approach. The view of the team is that delivery of the training should only be carried out by trainers with relevant experience and understanding of the issues which lie behind it. The project team therefore hope to carry on their activities to train and support others in delivering the Let's TWIST staff development training. In terms of further mainstreaming, project members have noted that although the work of the project has been centred particularly on Engineering and Construction, it can form a model for other areas of work.

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Pat Turrell is a chartered building surveyor with over 20 years experience in the construction industry. She joined Sheffield Hallam University in 1991 and is Course Leader of the Building Surveying degree. She is currently Chair of the Notts and Derby Royal Institute of Chartered Surveyors (RICS) Branch, Building Surveyors Division and is also active in the RICS at national level. Pat has been in the team designing the Let's TWIST training materials and has delivered Let's TWIST staff development training since December 1998. Pat also trained welding trainers in Portugal on women friendly programme delivery as part of the Let's TWIST project in January 1999.