Learning environments to develop vocational excellence

Research Brief

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The National Apprenticeship Service

The National Apprenticeship Service (NAS) champions apprenticeships throughout England. It works to develop partnerships with industry and education organisations to identify, develop and train, and support vocational talent through skills competitions. WorldSkills UK, housed within NAS, manages the local, regional and national competitions and trains the Team UK in preparation for the World Skills Competitions (WSC).

DuVE

NAS commissioned a suite of three projects, carried out by SKOPE, under the banner *Developing and Understanding Vocational Excellence (DUVE)*. The purpose of these projects is to better understand how participation in the WSC, through WorldSkills UK, contributes to the National Apprenticeship Service's aim of promoting skills development and improving the skills base in the UK. Further information on the projects can be found at: http://vocationalexcellence.education.ox.ac.uk

Developing vocational excellence

WorldSkills Competitions are organised by WorldSkills International (WSI).[i] These competitions are recognised by many as the pinnacle of excellence in vocational education and training (VET) providing both a benchmark for high-performance and an objective way to assess vocational excellence.

Young people, mostly aged 18-22,[ii] can participate. They undergo a selection process that begins with numerous regional and national skill competitions held throughout the UK.[iii] A shortlist of potential squad members is identified, and most candidates also attend an interview with recommendations from third parties. These candidates participate in a residential induction programme where three to four events may be held over a few months. Advancement from the shortlist to the squad involves two weeks training, a 'pressure test' on a project (often from a previous WSC) benchmarked to the WSI standards and then a training programme of approximately six months (including further competitions) after which Team UK is selected. Team selection is a four-day competition event, *The Skills Show*, which replicates as much as possible the conditions of the WSC. After team selection the competitors continue with intensive skill development and training[iv] to build

Abstract

This executive summary introduces some of the main findings from the report on Project 2: James et al. (2013), *Learning environments to develop vocational excellence. A Report to the National Apprenticeship Service*. This project focuses on understanding how, if at all, the learning environment within the work environment of UK participants in WorldSkills Competitions helps to develop world-class skills.

their skills to world-class standard for Team UK. Most competitors have spent some time in the workplace either as a full-time employee (apprentice), part-time employee or on some form of internship, and some are full-time students. While some of their skill development would have taken place within educational institutions, the vast majority of the training would have occurred in the workplace. The competitors' skills and knowledge developed in their workplaces are built upon in the WorldSkills UK training.

This project investigated the work environments of a group of young people involved in WSC, and a group of young people not involved in competitions, to see how differences in these environments affect measures of vocational excellence: selection into the squad and then Team UK, and medal performance.

Approach and methods

Drawing upon research by Eraut, and Fuller and Unwin[v] we designed a survey to identify aspects of the workplace that contribute to offering more expansive working environments. It focussed upon seven areas: participation and understanding of the workplace; task performance; access to resources to help learning; judgment, decision-making, problem-solving and reflection; experience, task transition and career progression; status as a worker and a learner; and organisational development. Research has demonstrated that the learning environment in a workplace can be crucial for skill development. This research extends that work by looking specifically at how the learning and working environment experienced by WorldSkills UK participants affects team selection and success at WSC. It addresses three key questions:

- What are the features of the learning environments for WorldSkills UK participants and non-participants?
- Do these differ for squad and team members? For WorldSkills UK participants versus non-participants?
- Are they related to performance at the WSC?

Participants

The survey sample consisted of the squad for the WorldSkillsUK teams in 2009, 2011 and 2013, employers of the 2009 and 2013 team members, and a group consisting of young people not involved in WorldSkills Competitions but taken from similar occupations. The majority of the squad completed the survey at the beginning of their team selection week in June 2009 during a seminar-style session on the first evening and the same process occurred for the 2011. The Non-WS group was contacted through their colleges. Employers completed a postal survey. In total there were 306 respondents in the sample. The data was further broken down to medal winners and non-medal winners once the results of the 2009, 2011 and 2013 WSC were available. We performed mean calculations and the percentage of responses to the questions using the Likert scale for descriptive analysis, and used exploratory factor analysis to identify the underlying trends in the responses.

Summary of findings

The findings show that:

- Aspects of the seven areas of focus work together to help the young person develop their skill and knowledge to a high level and for these workplaces these areas tended to be on the expansive end of the continuum.
- Team and medal winners scored higher on four particular factors: working with colleagues; understanding the aims and goals of the workplace; using a range of skills in their work; assessing their own performance.
- The prospect of progressing from squad to team did not significantly depend on the year of the competition or the particular skills cluster; however, there are strong sectoral/skill cluster distinctions with regards to the work environment ("ENVIRONMENT') and the types of tasks performed at work ("TASK").
- Participants with higher scores for both TASK and ENVIRONMENT showed signs of performing better, in particular in their progression into the squad and then from the squad to the final team.
- Team members scored higher for TASK and lower for ENVIROMENT on average than squad members who did not make the team. The more expansive the workplace on the two factors combined, the more likely the young person is to make the team. On their own these factors do not make a significant contribution; it is the combination of the environment and support for the young person by the firm with the particular tasks they are engaged in which is key to developing excellence.
- However, medal winners scored lower for both measures, on average, than non-medal winners.
- The group surveyed from outside the skills competitions (Non-WS) tended to score higher on average than the competitors for ENVIRONMENT, but lower for TASK.

[i] WSI, 2009. WorldSkills International Vision and Mission. http://www.worldskills.org/index.php?option=com_content&task=view&id=14&Itemid=350

[ii] The upper age limit to compete at a WSC is 22; the exception is in the skills areas of Information Network Cabling, Manufacturing Team Challenge, Mechatronics, and Aircraft Maintenance where the age limit is 25 years in the year of competition.

[iii] Competitors are also identified through the National Apprenticeship Awards, Awarding Bodies, City & Guilds Awards of Excellence, Sector and Industry Awards and through Sector Skills Councils.

[iv] Some members of Team UK also compete in EuroSkills as part of their training: http://www.euroskills.org

[v] Eraut, M. (2000, 2004 and 2007), and Fuller, A. and L. Unwin (2003). Please see main report for full references.