Workplace training and the impact it has on job performance.

Cheryl Ryan
Honours Candidate
Faculty of Business and Law
Central Queensland University

Abstract
As organisations are increasingly seeing employees as being vital human capital, it is progressively more important that organisations employ effective methods for enhancing the performance levels of their human capital. One means of performance enhancement is through the application of workplace training. However, to discern whether the training being undertaken is having an impact on job performance, there should be evidence of transfer of that training to the employee in that job. The focus of this research is on the transfer of behavioural training which was undertaken at a Central Queensland coal mine. The focus of this paper is a study of participants in a training program which involved employees undertaking a series of modules over a period of eighteen months and the extent of the transfer of learning to the job. This paper will discuss the preliminary findings of the survey undertaken by participants in the training program; it will also discuss preliminary results of a series of interviews with the supervisors of these employees in order to determine whether there is evidence of the transfer of the training.
Introduction
Workplace training is a means by which organisations can attempt to ensure enhancement of their human capital through improved job performance. However, for workplace training to have an impact on job performance, there should be evidence of transfer of that training to the job (Taylor 2000; Bangaruswamy 2002). Two approaches to training, informal and formal, can be undertaken in a workplace, formal training will usually consist of instructional content that is predetermined, systematic, follows a detailed format with specific learning objectives as the outcome, can be focused on vocational/technical skills or behavioural skills, and usually encompasses some means of evaluation upon completion (Dawe 2003; Trewin 2003; Moy 2000). Behavioural skills training, according to the International Labour Office (1998) can impact on and enhance levels of workplace communication, leadership, time management, problem solving and other personal development skills.

This paper begins with a review of the literature which examines the following questions: What is workplace training? Why train employees? What is the link between training and performance? How effective is workplace training? It then discusses the processes and preliminary outcomes of a study into behavioural training, which was undertaken at a Central Queensland coal mine. In this instance behavioural training involved a Leadership Development Program consisting of a series of six modules that covered areas as diverse as communication, planning and delegation, performance management, role definition, self-management, and coaching through leadership.

Background
The organisation at which the research was undertaken is a coal mine in the Central Queensland (CQ) Bowen Basin region. The overall workforce for the organisation is approximately 600 employees working in operational, services and administration areas. Of the total workforce, 124 supervisors, superintendents and managers participated in a leadership development training program that consisted of six modules. The study involved a total of 106 employees who participated in the training program; the remaining 18 have either left the organisation or retired from the industry.

What is workplace training?
Workplace training is a process by which organisations can endeavour to ensure escalation of their human capital through improved job performance. There are two approaches to training that can be undertaken in a workplace, informal and formal training. Informal training can be carried out in an impromptu manner, with no specific goals to be attained and can be easily adjusted to suit any situation (Dawe 2003; Macneil 2001; McNamara 1999). According to Cofer (2000) and Dobbs (2000), 70% of learning in the workplace is via informal training methods, by means of asking questions, being directed how to operate machinery, by observing fellow workers, or receiving instruction from a supervisor or peer. In contrast, formal training will usually consist of instructional content that is predetermined according to the needs of the employee and the organisation; is systematic in approach; follows a detailed format with specific learning objectives as the outcome; is customarily focused on vocational/technical or behavioural skills; and usually encompasses some form of training evaluation upon completion (Dawe 2003; Trewin 2003; Moy 2000). According to Dawe (2003) and McNamara (1999) formal training can be presented in a variety of formats such as workshops, training seminars and presentations; it can be carried out on-the-job, on-site at specific training centres, off-site at established learning institutions, conference centres or designated seminar venues.

Two separate elements make up what is formal workplace training: there is that training which supports the augmentation of vocational or technical skills, whereby an employee is provided with specified training to upgrade current job related skills; and training that focuses on behavioural skills, such as the enhancement of workplace communication, leadership, time management, problem solving and other personal development skills (Venkatraman 2003;
Berge et al. 2002; Ridoutt et al. 2002; Smith & Freeland 2002). Behavioural skills training undertaken at a Central Queensland coal mine is the focus of this paper. This will be discussed in more detail later in this paper.

**Why train employees?**
According to Munshi (2002) and Schonewille (2001) organisations are increasingly seeing employees as human capital, which can be defined as being, the best people with the most advantageous knowledge, skills, attitude and attributes for the organisation. Therefore, it is in the organisation’s best interests to assist their human capital to expand and augment their knowledge and skills in order to initiate enhanced performance. There are however arguments both for and against the implementation of workplace training, for instance Forrier and Sels (2003) argue that one of the main obstacles to the implementation of workplace training is the possibility that once trained employees will become the focus of poaching by competitors. On the other hand, Martin, Pate and Beaumont (2001), Spencer (2002) and Westhead (1998) contend that workplace training is beneficial in reducing the outflow of employees to rival organisations; in augmenting employee motivation and self-efficacy; and in providing upgraded knowledge and skills for employees. All of which can ensure that trained employees are vital assets for the organisation.

**What is the link between training and performance?**
There is a diverse array of reasons, such as better employer/employee feedback, improved monetary and non-monetary remuneration systems, workplace design, organisational structure and training and development, behind enhanced employee performance (Burrow & Berardinelli 2003; Santos & Stuart 2003; Billet 2001). There are some researchers, for example LaBonte (2003), who claim that no matter what the level of improvement in knowledge, skills and attitude through training, it is unlikely to manifest itself in improved performance. However, such researchers are in the minority, as most of the literature reviewed indicates a positive link between workplace training and performance. According to Santos and Stuart (2003), Burrow and Berardinelli (2003), and Billet (2001) employees will benefit from both intrinsic and extrinsic rewards, leading to a more motivated and self-reliant workforce, thereby improving individual performance levels. Further studies, such as those conducted by Miller (2003), Nickols (2000) and Westhead (1998), show that improved performance through the development of individuals via amelioration in knowledge, skills and attitude can enhance job satisfaction, increase levels of employee motivation, and provide greater flexibility and self-efficacy, which can all lead to increased employee productivity levels.

**How effective is workplace training?**
Workplace training, it is argued in the literature has an affirmative effect on individual performance, is only truly effective if there is transfer of what has been learned in training to the person’s job. Evidence of transfer of training exists when there is ongoing utilisation in the job of knowledge and skills acquired during training, and it can be demonstrated that the employee can sustain the recently acquired knowledge and skills over a period of time (Elangovan & Karakowsky 1999). However, research such as that conducted by Cheng and Ho (2001) and Foxon (1993) shows that there is insufficient validation that some forms of workplace training are being transferred to the job. This failure to transfer is principally significant to training associated with behavioural skills, whereby, according to Foxon (1993), there is restricted transfer of learned skills. Taylor (2000), Bangaruswamy (2002), Cheng and Ho (2001) and Foxon (1993) claim there are a number of factors or barriers that can influence the transfer of what is being learned in training to the person’s job, such barriers can include individual, environmental, organisational factors, training design and culture.

**The training program**
The training program conducted at the CQ mine is a package of individual modules based around the enhancement of behavioural skills, in the form of a leadership development
program, in employees ranging from supervisory to management level. There are six modules that make up the package: managing performance – based on the management of the performance of subordinates; communication for leaders – whereby individuals undertaking the course are provided with the correct format for communication, both written and oral, with subordinates, peers, supervisors and managers; planning and delegation – each part of which is aimed at specific employee levels, outlining his/her responsibilities and time lines for planning and delegating; self-management – which involves employees learning how to better manage their time at the workplace; coaching through leadership – whereby employees are shown the most appropriate methods in which they are to employ meaningful on-the-job training for subordinates; and, the role of either the supervisor, the superintendent, or the manager – which involves providing the various levels of employees with specific direction as to what their individual roles entail and how they can get the most from their specific roles. The time frame for each of the six modules ranged from one to two days for completion, with employees participating in various modules over a period of eighteen months.

Research Aims and Objectives
Given that workplace training is a vital method adopted by organisations to enhance their human capital and job performance levels, there should be evidence of the transfer of that training to the employee’s job. The preliminary results reported in this paper are based upon a survey undertaken by participants in the leadership development program which was carried out over a period of eighteen months at a Central Queensland coal mine; and interviews with the Superintendents of those participants with the aim of determining whether or not transfer of that training to the job has occurred, and whether or not there has been change in the levels of job performance as a result of the training. The objectives of the study are:

1. Determine employees overall expectations and perceptions of workplace training;
2. Investigate the level of knowledge with relation to the various modules;
3. Determine the degree of usefulness of the various modules, as perceived by employees;
4. Ascertained the levels at which employees are applying the skills gained from the various modules; and
5. Establish the levels of transfer of the training.

This paper examines objects 1, 3 and 4.

Methodology
This study utilised two approaches to gathering the required data, the first being a self-administered questionnaire that was distributed through the organisation’s training department. The questionnaire was developed specifically for this study, and consisted of four sections: demographics; employee perceptions and expectations of training; topic relevant questions; and perceived usefulness and application of the various modules. The second approach involved conducting interviews with the Superintendents of the training participants to discern whether or not there is evidence of the transfer of the training to the employees’ job.

Sample
The population frame consisted of current supervisors, superintendents and managers of a Central Queensland coal mine. The convenient sample for the survey was drawn from employees who had participated in the leadership development training program. A total of 42 (43.75% of possible respondents) questionnaire responses had been received at the time of this analysis. Of the total responses received, 39 (93%) of the respondents are employed in the operational side of the organisation, and 3 (7%) are employed in the services section of the organisation. This percentage disparity is indicative of the variances for the services section, 11 (10%) of the total employees who participated in the training program. Of the remaining 95 (90%), six employees participated in the pilot study and were therefore deemed ineligible to participate in the main study. The convenient sample for the interviews was drawn from the superintendents of those employees, who participated in the training program. A total of
six (100%) respondents agreed to interviews. Of these, 3 are from the operational section of the organisation, 2 are Services Section Superintendents, while 1 is the Manager of the Services Section.

Findings
All current employees of the organisation, with the exception of pilot study participants, who undertook the leadership development training program, were afforded the opportunity to complete the questionnaire. The table below shows an overall view of the current positions of employees who returned the completed questionnaire. Respondents to the survey are employed in the three main areas of the organisation, which are operational, services and administration. The breakdown is indicative of the overall percentages for each position within the entire organisation.

Table 1: Current positions of employees for completed surveys

<table>
<thead>
<tr>
<th>Employee level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew Supervisor</td>
<td>18</td>
<td>42.9</td>
</tr>
<tr>
<td>Shift Supervisor</td>
<td>8</td>
<td>19.0</td>
</tr>
<tr>
<td>Coordinator</td>
<td>5</td>
<td>11.9</td>
</tr>
<tr>
<td>Superintendent</td>
<td>5</td>
<td>11.9</td>
</tr>
<tr>
<td>Manager</td>
<td>1</td>
<td>2.4</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>11.9</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The survey sought to determine employees overall expectations and perceptions of workplace training. This section of the survey contained a total of twelve questions: six questions related to employees’ expectations from workplace training; and six questions relating to employees perceptions of workplace training.

Expectations of workplace training relate to whether or not: the organisation considers training to be a key factor in their overall plans from the point of the employee; supervisors discuss particular training needs with employees; employees expect to apply what is learned in training to the job; employees receive the training they consider to be of assistance in their job; and, employees consider that there is room for improvement in their skill levels. Table 2 below shows an overall view of employees’ expectations from workplace training. From this table it is clear that 81% of the respondents believe that training will result in skills improvement.

Table 2: Employees expectations from workplace training

<table>
<thead>
<tr>
<th>Skill development and training key factors</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>My supervisor discusses my training needs</td>
<td>11 (26.2%)</td>
<td>13 (31%)</td>
<td>8 (19%)</td>
<td>9 (21.4%)</td>
<td>1 (2.4%)</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>Expect to apply skills learned in training</td>
<td>1 (2.4%)</td>
<td>9 (21.4%)</td>
<td>9 (21.4%)</td>
<td>27 (64.3%)</td>
<td>11 (26.2%)</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>I do not receive the training I need</td>
<td>1 (2.4%)</td>
<td>9 (21.4%)</td>
<td>9 (21.4%)</td>
<td>17 (40.5%)</td>
<td>6 (14.3%)</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>There is always room for improvement</td>
<td>1 (2.4%)</td>
<td>0 (4.8%)</td>
<td>2 (31%)</td>
<td>13 (59.5%)</td>
<td>25 (2.4%)</td>
<td>1</td>
<td>42</td>
</tr>
<tr>
<td>My skills do not need improvement</td>
<td>7 (16.7%)</td>
<td>27 (64.3%)</td>
<td>2 (4.8%)</td>
<td>3 (7.1%)</td>
<td>2 (4.8%)</td>
<td>1</td>
<td>42</td>
</tr>
</tbody>
</table>
Perceptions of workplace training relate to the consideration of: time applied to training or the job; satisfaction levels when training is applied to the job; opportunities to participate in training; employee input into training received; and, personal benefit from training. Table 3 shows the results of the question relating to employees’ perceptions of workplace training. It is very interesting to note the link between increased job satisfaction and training, 88% of respondents report this increase in job satisfaction.

Table 3: Perceptions of workplace training

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction rises when I apply skills learned in training</td>
<td>2 (4.8%)</td>
<td>2 (4.8%)</td>
<td>25 (59.5%)</td>
<td>12 (28.6%)</td>
<td>0</td>
<td>42 (100%)</td>
<td></td>
</tr>
<tr>
<td>Participation in training is important to me</td>
<td>0</td>
<td>5 (11.9%)</td>
<td>24 (57.1%)</td>
<td>6 (14.3%)</td>
<td>0</td>
<td>42 (100%)</td>
<td></td>
</tr>
<tr>
<td>I receive no personal benefit from workplace training</td>
<td>15 (35.7%)</td>
<td>17 (40.5%)</td>
<td>2 (4.8%)</td>
<td>1 (2.4%)</td>
<td>0</td>
<td>42 (100%)</td>
<td></td>
</tr>
<tr>
<td>Training is a waste of my time</td>
<td>30 (71.4%)</td>
<td>9 (21.4%)</td>
<td>3 (7.1%)</td>
<td>0</td>
<td>0</td>
<td>42 (100%)</td>
<td></td>
</tr>
<tr>
<td>My time could be better spent on the job</td>
<td>3 (7.1%)</td>
<td>15 (35.7%)</td>
<td>12 (28.6%)</td>
<td>10 (23.8%)</td>
<td>2 (4.8%)</td>
<td>0</td>
<td>42 (100%)</td>
</tr>
<tr>
<td>I have input into the training I receive</td>
<td>5 (11.9%)</td>
<td>17 (40.5%)</td>
<td>8 (19%)</td>
<td>9 (21.4%)</td>
<td>3 (7.1%)</td>
<td>0</td>
<td>42 (100%)</td>
</tr>
</tbody>
</table>

The leadership development training program consists of six modules: managing performance, communication for leaders, planning and delegating, self-management, coaching through leadership, and the role of the supervisor, superintendent or manager. The survey contained two questions in section 4 of the survey: the first question asked respondents to indicate how useful they consider the content of each module to have been to their job. Table 4 shows the results for the question relating to usefulness of the module content when compared to the job.

Table 4: Usefulness of module content to the job

<table>
<thead>
<tr>
<th></th>
<th>Very useful</th>
<th>Mostly useful</th>
<th>Somewhat useful</th>
<th>Completely useless</th>
<th>Not applicable</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing performance</td>
<td>6 (14.3%)</td>
<td>13 (31%)</td>
<td>14 (33.3%)</td>
<td>1 (2.4%)</td>
<td>6 (14.3%)</td>
<td>2 (4.8%)</td>
<td>42 (100%)</td>
</tr>
<tr>
<td>Communications for leaders</td>
<td>6 (14.3%)</td>
<td>18 (42.9%)</td>
<td>10 (23.8%)</td>
<td>1 (2.4%)</td>
<td>6 (14.3%)</td>
<td>2 (4.8%)</td>
<td>42 (100%)</td>
</tr>
<tr>
<td>Planning and delegating</td>
<td>9 (21.4%)</td>
<td>13 (31%)</td>
<td>11 (26.2%)</td>
<td>2 (4.8%)</td>
<td>5 (11.9%)</td>
<td>2 (4.8%)</td>
<td>42 (100%)</td>
</tr>
<tr>
<td>Self-management</td>
<td>10 (23.8%)</td>
<td>16 (38.1%)</td>
<td>8 (19%)</td>
<td>1 (2.4%)</td>
<td>5 (11.9%)</td>
<td>2 (4.8%)</td>
<td>42 (100%)</td>
</tr>
<tr>
<td>Coaching through leadership</td>
<td>10 (23.8%)</td>
<td>15 (35.7%)</td>
<td>10 (23.8%)</td>
<td>2 (4.8%)</td>
<td>4 (9.5%)</td>
<td>1 (2.4%)</td>
<td>42 (100%)</td>
</tr>
<tr>
<td>Role of leader</td>
<td>8 (19%)</td>
<td>15 (35.7%)</td>
<td>10 (23.8%)</td>
<td>1 (2.4%)</td>
<td>5 (11.9%)</td>
<td>3 (7.1%)</td>
<td>42 (100%)</td>
</tr>
</tbody>
</table>

The second question asked respondents to indicate how much of what was learned in the modules they have applied to their job. Table 5 shows these results. The greatest weakness is
apparent in the area of managing performance, only 35% of respondents see that most of this module is relevant. This may mean the module needs to be modified or the performance measurement in the work place is out of step with current policies and needs to be re-aligned.

To determine whether or not there is evidence of the transfer of what was learned in the training to the participant’s jobs, semi-structured interviews were conducted with five superintendents and one divisional manager. Three of the interviewees are employed in the services division of the organisation, while three are employed in the operational side of the organisation.

### Discussion

The survey of employees who participated in the leadership development training program shows some contradictions relating to employees expectations of workplace training. There is a disparity between responses relating to skill development and training, where 69% of respondents believe that skill development and training are key factors to the enhancement of performance, and supervisors discussing training needs with employees, whereby 57% of respondents state that their supervisor does not discuss training needs with them. As these supervisors have also participated in the training, in particular the communications module, they should see the need to communicate with subordinates regarding training needs. In the area of application of learned skills, 90% expect to apply skills learned in training to their job. However, as 54% of employees believe they do not receive the training they need, there is little likelihood that skills learned in training seen as not being relevant to the job would be transferred to the job. Results for questions relating to the need for improvement illustrate that respondents believe that there is room for improvement in the way they perform their job (90%) and that their current skill levels also need to be improved (80%) in order to better carry out their job, showing that employees expect skill development and training to be critical factors in the enhancement of performance through being able to better perform their job.

Employee perceptions of workplace training results show that there is a correlation between job satisfaction and training as 88% of respondents believe that their satisfaction levels rise when they apply skills learned in training, and 78% believe that they receive personal benefit from training, which will come through in improved job performance levels, thereby confirming results from studies undertaken by researchers such as Santos and Stuart (2003), Burrow and Berardinelli (2003), Billet (2001) and Westhead (1998). Employees that demonstrate a degree of job satisfaction, and believe that they receive some personal benefit from training are less likely to seek employment with other organisations, which refutes the claim by LaBonte (2003) that improving knowledge and skills through training is unlikely to lead to improved performance. Participation in training is seen as being important and critical
to development (71%), while 92% believe that training is not a waste of time. However, there is a measure of uncertainty as to whether their time could be better spent on the job. There is also a degree of concern with 52% of respondents claiming that they have no input into the training they receive, leading to the assumption that they perceive that they do not receive the training they need.

Results from questions relating to usefulness and application of the content of the modules again show contradictions between what some levels of employees believe and what actually occurs. There is concern that 57% found the communications module of use, and 67% maintain that they apply the content, yet when related back to results from Tables 2 and 3 there is a lack of communication between superintendents and supervisors, and managers and superintendents, with regards to employees training needs, showing that although they found the content to be of use, they actually fail to apply what was learned. Although 59% found the coaching through leadership module to be of use, only 38% apply what was learned, confirming that there is a lack of communication with subordinates when related back to employee training needs. Of the remaining modules, self-management (61%) (38%), role of leader (54%) (35%), and planning and delegation (52%) (33%), although found to be useful to the job, there is very little content actually applied to the job. With the managing performance module, only 44% found it to be of any use, with 35% applying it to the job, showing that there is little relationship with this module to the workplace.

There are two conflicting points of view with regards to the interviews with superintendents. Of the six interviews, three involved personnel from the services section of the organisation, and three from the operational side. When questioned about evidence of transfer of the training to subordinates jobs, a superintendent from the services section stated “I’m seeing them do things now, such as the way they manage and the way they communicate with their crew, different to the way they did before the training,” showing that there is evidence that in this part of the organisation that the communications and coaching modules have had some impact on employees. When asked about content from the other modules being transferred, there was consensus among personnel from the services section that “where employees should be looking at time-lines, they are now looking at long term time frames rather than what is happening now or in the near future,” indicating that content from the planning and delegating module is being transferred. However, there is little evidence of transfer of content from the remaining modules, which confirms the findings from results of the survey.

There was consensus among the three interviewees from the operational section of the organisation, in that other than “subtle changes in the way they communicate with their supervisors,” there is little evidence that any of the content of the modules has been transferred to the job. When asked if, in their opinion, employees felt comfortable about the training, the general reply indicated that “they don’t see the relevance to their job,” adding that, “if the training involved day-to-day activities, they might look at this type of training in a different light.” This disparity in the rate of transfer indicates that an employees’ working environment will impact on whether or not behavioural training is transferred to the job, and that unless it is deemed relevant to the job operational employees are unlikely to apply knowledge gained in such training.

Conclusion
The findings and subsequent discussion presented in this paper indicate that there is a link between workplace training and performance when employees receive training they see as being relevant to their job. However, they also show that environment and embedded culture such as that which is found in underground coal mining can be a barrier to the transfer of behavioural training to the job, indicating that the material in some of the modules needs to be modified depending on which part of the organisation the training is being aimed.
There is clearly a need to assess the effectiveness and outcomes of training and it is not simply the case that once training is done the job is done. For training to be effective it must be implemented in the workplace or the skills and behavioural transfer does not occur. In organisations such as coal mines where there is a strong well established culture behavioural change is no easy matter. After training there needs to be follow up and those staff who are not changing their behaviours need either further training or coaching to ensure that they do not reinforce old behaviours. Culture is not easily changed but training if done effectively can help.

**Reference List**


