

# THE ROLE OF GOAL SETTING IN WORKFORCE DEVELOPMENT

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Workplace development brings change. New policies may be developed, workplace systems transformed, and tasks, roles and responsibilities adapted and revised. For the individual employee a new set of behaviours may be required, or established patterns of behaviour may be adapted and transformed. Within the psychological literature, goal setting theory represents one of the most well developed and empirically supported approaches to behaviour change. The key to its success is the treatment of behaviour as a function of factors relating to the individual (ability, skills and attitudes) and the environment (workplace systems of performance feedback and rewards). This paper will explore examples of successful implementations of goal setting programs in the workplace, with a particular focus on the potential applications of this approach for workforce development in the alcohol and other drugs (AOD) field.

Goal setting is commonly used in the AOD field in the context of cognitive behavioural treatments of drug addiction. Goal setting has also been identified as one of the most effective methods of changing behaviour in the workplace. In 1990 Edwin Locke and Gary Latham presented a comprehensive theory of goal setting that remains the predominant guiding model for research and practice in organisational psychology. Their theory has been tested on a wide variety of tasks and with a multitude of professions including research scientists, production line workers, nurses, sales representatives, executives, managers and office administrative staff. This paper outlines the central tenants of Locke and Latham's goal setting theory. Case studies of goal setting interventions in the workplace are provided and the implications for workforce development in the AOD field are explored.

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## HOW ARE GOALS SET?

Goal setting theory is founded on the principle that, with adequate levels of goal commitment and ability, performance increases with increasing goal difficulty (Latham and Locke, 1991; Locke and Latham, 1990). This effect is greater for specific, difficult goals compared to general “do your best” goals (Latham and Locke, 1991).

Applying this principle in the workplace raises the question: how do I know that a goal is difficult and specific enough? In experimental studies a difficult goal is generally set at 10% objective probability of attainment (ie on average only 10% of participants will achieve the goal) (Brewer

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and Skinner, in press; Klein, Wesson, Hollenbeck and Alge, 1999). In their meta-analysis of goal setting studies Klein et al (1999) defined moderate goals as those with 16%-50% probability, and easy goals as those with greater than 50% probability of attainment. This type of objective data may not be available in the workplace, especially when new behaviours or work practices are required. Here the goal setter must exercise their best judgement concerning the performance level required to present sufficient challenge without discouraging attempts to achieve the goal. Careful planning is also required when deciding the specificity of a goal. The advantage of specific goals is that they clearly direct effort and attention towards actions and behaviours necessary for successful performance (Latham and Locke, 1991). It is therefore important that particular care is taken to ensure all desired aspects of performance are taken into account. For example, setting a specific goal for the quantity of work will result in reduced quality unless a goal relating to quality of output is also stated. Clearly the more complex the particular behaviour or work practice, the more care required to ensure that goal setting does not result in only isolated areas of performance change or improvement.

### **HOW DO GOALS WORK: WHY ARE THEY EFFECTIVE MECHANISMS FOR BEHAVIOUR CHANGE?**

Specific and difficult goals influence three key aspects of successful performance (Latham and Locke, 1991; Locke and Latham, 1990):

- direction of attention and effort towards task relevant behaviours and actions
- investment of effort and energy in goal relevant behaviours
- persistence in goal related striving in the face of difficulties or obstacles.

An obvious requirement for successful performance is possession of the requisite skills and abilities. The model presented in this paper assumes these skills and abilities are present. Self confidence in one's ability is addressed below in relation to goal commitment.

### **WHAT ELSE IS NEEDED IN ADDITION TO SETTING SPECIFIC AND DIFFICULT GOALS?**

Three additional considerations have been identified as crucial for successful goal setting. These are:

- goal commitment
- performance feedback
- task complexity.

#### **Goal Commitment**

Goal commitment is defined as “the degree to which the individual is attached to the goal, considers it significant or important, is determined to reach it, and keeps it in the face of setbacks and obstacles” (Latham and Locke, 1991, p217). It has been suggested that goal commitment interacts with goal difficulty in determining performance. Specifically, with difficult goals, high goal commitment is crucial for high performance. With easy goals, a high level of commitment does not result in high levels of performance since individuals will tend to cease striving once the easy goal is obtained (Klein et al, 1999). In general, when averaged across all levels of goal difficulty, goal commitment is positively related to performance (Klein et al, 1999).

A number of meta-analyses and reviews have supported an expectancy value model of goal commitment (Klein, 1991; Locke, Shaw, Sarri and Latham, 1981; Wofford, Goodwin and Premack, 1992). Such a model views goal commitment as a function of the expectancy that a goal can be achieved and the attractiveness of goal attainment. In the goal setting literature expectancy of goal attainment is commonly operationalised in terms of self efficacy (Klein, 1991). Key determinants of goal attainment attractiveness include participation in goal setting, provision of performance feedback (see below), self efficacy, peer pressure/group norms, and rewards/incentives.

### **Participation in Goal Setting**

The influence of participation in goal setting on goal commitment has been a topic of some debate (cf Latham, Erez and Locke, 1988). Nevertheless, in their recent meta-analysis Klein et al (1999) concluded that participation in the goal setting process is positively related to goal commitment. This does not imply that goals assigned by others (such as a supervisor) are not likely to sustain high commitment. Commitment to an assigned goal is increased when the individual assigning the goal is perceived to have legitimate authority, provides a rationale or explanation for the goal, and provides support in goal related striving. Examples of support include emphasising potential for self development and acting as a role model for the desired behaviour (Latham and Locke, 1991; Locke and Latham, 1990).

### **Rewards and Incentives**

Goal setting research has tended to focus on the influence of monetary rewards on goal attainment. In general, monetary rewards of sufficient value, those more than a couple of dollars, are associated with higher goal related performance compared to performance with no monetary reward (Locke and Latham, 1990). On the other hand, if a goal is too difficult or impossible to achieve, then offering extrinsic rewards for goal attainment is likely to lower commitment and performance. One solution is to set both long term and short term goals. This way, performance can be rewarded for attainment of short term goals that lead to the longer term objective (Mowan, Middlemist and Luther, 1981). Goal setting theory does not explicitly focus on intrinsic sources of goal commitment, such as mastery and self development. Nevertheless, the role of intrinsic motivation in goal commitment is implied in the identification of supervisor support, self efficacy and performance feedback as factors influencing commitment. To some extent each of these factors addresses the intrinsic satisfaction and reward that is likely to be experienced with successful performance, such as progress towards, and eventual attainment of, a goal.

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### **Peer or Group Pressure**

Peer pressure and group norms can have a powerful influence on an individual's behaviour. With high group cohesion and normative expectations for successful performance (ie goal attainment), the goal commitment of individual group members is likely to be high (Locke and Latham, 1990; Weldon and Weingart, 1993).

### **Self Efficacy**

Self efficacy refers to an individuals' judgement of their own capacity to perform particular tasks or activities, given their level of skill and ability (Bandura, 1986). It has been well established that self efficacy has a strong and significant impact on effective task performance (see Bandura, 1997 for a review). There is also evidence that self efficacy in relation to goal attainment plays an important role in goal commitment (Latham and Locke, 1991). Bandura (1986, 1991) has developed a comprehensive

theory of self efficacy. It is beyond the scope of this paper to review this theory in detail. In brief, Bandura identified four key antecedents of self efficacy judgements - success experiences, observing others perform successfully, being persuaded by others that one has the capability to perform effectively, and perceptions of one's level of anxiety or tension.

Setting very difficult goals can also decrease self efficacy (ie perceived capacity for goal attainment) and hence reduce goal commitment (Locke and Latham, 1990). One solution to this problem is to set both short term and long term goals. This strategy is likely to be of particular benefit for complex or difficult tasks and work practices. Stock and Cervone (1990) identify three mechanisms through which proximal goals assist performance:

- assigning and subsequently attaining a short term goal enhances self efficacy in relation to obtaining the longer term goal
- attaining a short term goal enhances feelings of satisfaction relating to progress on the task
- short term goals produce greater persistence.

The benefits of setting short and long term goals is demonstrated in the Weldon and Yun (2000) case study described in a later section.

### **Performance Feedback**

Goal setting and performance feedback go hand in hand. Without feedback goal setting is not effective (Latham and Locke, 1991; Locke and Latham, 1990; see Neubert, 1998 for a meta-analysis). Performance feedback can be provided on both the outcome and process of goal related striving. Outcome related feedback relates to successful attainment or failure to obtain a desired level of performance. Process related feedback can address effectiveness of performance strategies or plans aimed at achieving a goal, as well as achievement of short term goals that represent incremental progress towards the final goal. Process feedback has been identified as particularly important for complex or difficult tasks. Setting specific and difficult goals for complex tasks may inhibit performance by encouraging a focus on the desired outcome rather than the most effective strategies to reach that point (Locke and Latham, 1990). Providing feedback on the effectiveness of task strategies can overcome this effect.

Farley and colleagues (1990) show the effect of providing feedback on processes relating to complex decision making tasks, using stock investment computer simulation. They found that feedback about the processes of seeking information led to more effective performance than providing outcome related feedback about decisions, in this case, whether an investment decision made or lost money.

### **Goal Setting With Complex Tasks / Work Practices**

Extra care needs to be taken with complex tasks regarding goal setting, commitment and feedback to ensure that the overall effect on performance is beneficial rather than harmful. Task complexity is function of the:

- number of inputs associated with a task, including actions required and information cues to be attended and processed
- complexity of the coordination required between inputs, for example simultaneous processing of information from a number of different sources and performing difficult physical actions in rapid succession
- degree and predictability of change in inputs and coordination requirements.

(Locke and Latham, 1990, p308)

According to this definition the majority of frontline workers in the AOD field, including nurses, doctors, police, psychologists and social workers, are performing moderate to highly complex tasks. It is obvious that complex or multifaceted tasks and work practices require more than simply a willingness to exert effort and persistence. In this context, appropriate and effective task strategies are of central importance to the effectiveness of goal setting. Setting a specific and difficult goal has been shown to stimulate a greater amount, and higher quality, of goal directed planning by individuals (Latham and Locke, 1991) and groups (Weldon and Weingart, 1993). Successful goal setting with complex tasks is strongly dependent on the use of appropriate and effective task strategies. In this context, goal setting can be a powerful tool for effective performance, but it can also do significant damage to performance if not applied with care. When goal setting for complex tasks the following principles are essential for success (cf Latham and Locke, 1991; Locke and Latham, 1990; Wood and Locke, 1990). First, allow for a time lag between goal setting and improved performance. Faced with a complex task individuals and groups may need to trial various strategies before choosing the most effective. Second, a period of goal free practice, trial and error is appropriate in the initial stages of learning a complex task or skill. Third, providing training in effective strategies can go some way towards overcoming the time lag between goal setting and performance. Fourth, specific difficult goals may inhibit the trial and identification of effective task strategies if pressure is applied for immediate high performance.

The following section presents two case studies of goal setting in the workplace. An extensive literature search did not reveal any studies in the AOD field in particular. The case studies therefore present interventions conducted in the broader health and medical fields.

## **CASE STUDIES: GOAL SETTING IN THE WORKPLACE**

### **Case Study 1: The Effects of Proximal and Distal Goals on Goal Level, Strategy Development and Group Performance (Weldon and Yun, 2000)**

#### **Background**

This study explored the effects of setting proximal (short term) and distal (long term) goals on the quality of written reports produced by nurse surveyors of nursing homes and homes for the developmentally disabled. Working in teams of three to five individuals, nurse surveyors planned, implemented, and wrote a written report on the adherence of the homes to state and federal regulations. An independent, quality control reviewer checked each report to ensure strict guidelines were met concerning evaluation process and style of writing relating to grammar and punctuation. The nursing team was responsible for making corrections suggested by the reviewer. Thirty one teams participated in the study.

#### **Study Design**

There were two goal setting groups, one that set both short and long term goals, and another that set only long term goals. Performance was measured according to the accuracy of reports. Accuracy was defined as the percentage of deficiencies reported (failure to meet regulations) divided by the total number of reported deficiencies in a document.

#### **Goal Setting Intervention**

Teams received feedback on their current level of performance (average level of accuracy over the previous five reports). Team members then set an accuracy goal to be obtained in the next six to nine

months, and set a date for the achievement of this goal. Nurses in the long term goal group only set a long term goal. Nurses in the short term goal group set one or two additional goals that represented progress towards the distal goal. Feedback was provided by supervisors on the accuracy of each report submitted.

### **Results**

There were no differences in goal commitment between the two groups. The short plus long term goal groups set more difficult goals (71% accuracy rate) compared to long term goal groups (59% accuracy rate). This finding is consistent with Stock and Cervone's (1990) argument that proximal goals increase self efficacy relative to a longer term goal. Overall, setting difficult goals was positively related to performance. In addition, setting difficult goals encouraged the development of performance improvement strategies, which in turn were associated with higher performance.

### **Conclusion**

This study supports the benefits of setting short and long term goals. One explanation is that a long term goal will seem more achievable if it is preceded by smaller progressive goals. Specifically, setting a series of short term goals reduces the subjective perception of distance between current and the final desired level of performance, hence the long term goal will be perceived as attainable.

## **Case Study 2: Me and Us: Differential Relationships Among Goal Setting Training, Efficacy and Effectiveness at the Individual and Team Level (Gibson, 2001)**

### **Background**

Participants were nursing teams working in midsize hospitals (50-100 beds) in the general inpatient, emergency, and obstetrics/maternity wards. Teams were defined as naturally occurring groups of four to six nurses on a ward who perceived themselves to be a team and shared the same roster. Nurses worked individually and as teams on a variety of tasks including admittance and discharge of patients, monitoring vital signs, and starting/changing an intravenous drip.

### **Study Design**

Participants were randomly assigned to either goal setting training (120 nurses in 51 teams) or a control group (67 nurses in 20 teams). The study was conducted as part of a hospital wide approach to improving quality in standards of nursing care through assessment, feedback, discussion of assessments and action planning. In the goal setting condition teams of nurses participated in a one day training session. In this training session the goal setting intervention was introduced in the context of implementing a quality of care system. The basic principles of goal setting were reviewed and an overview was given of research on benefits of goal setting. Nurses then set goals for the quality of patient care for themselves as individual nurses, and for the team as a whole. Barriers and facilitators to goal attainment were also discussed. Nurses in the control group participated in a training workshop in which the quality process was described with no goal setting training provided. Nurses in both groups completed measures of their confidence in achieving particular levels of patient care prior to and immediately following the training workshops. Individual nurses and teams (one survey per team) provided confidence ratings. Quality of care was assessed by a survey to a random selection of patients two weeks following training. Individuals



and teams then received feedback on their performance and discussed action plans for improving quality of care. The control group received goal setting training at a later date.

## Results and Conclusion

For individual nurses both goal setting training and high confidence were associated with higher quality of care. Goal setting training was also found to increase nurses' confidence. The quality of care provided by teams was not affected by goal setting training. Rather, training was found to increase team confidence, which in turn improved quality of care. Gibson suggests that it may have been easier for individual nurses, compared to whole teams, to change their behaviour in response to the goal setting training. It is also possible that more extensive training was required on effective strategies to modify group processes. As Gibson (2001, p804) acknowledges, the lack of a baseline measure of individual and team effectiveness prevents concrete conclusions concerning the actual impact of goal setting training on performance.

## CONCLUDING COMMENTS

Goal setting theory represents one of the most well developed and empirically tested theories of behaviour change that organisational psychology has to offer. The two case studies described in this paper indicate that goal setting is likely to be an effective workforce development tool for frontline workers in the AOD field. It is crucial to acknowledge, however, that frontline workers, such as nurses, doctors, police, psychologists and social workers, typically perform relatively complex tasks that require particular care for goal setting. In this context, it is unlikely that there is one intervention that will always be effective. Rather, the effectiveness of frontline workers is likely to be maximised by taking into account a number of key considerations. Ensuring that individuals have the skills and confidence for effective performance provides the foundation of successful goal setting. Setting short term and long term goals, and providing feedback relevant to these goals, is essential for complex tasks. Feedback is most likely to improve performance when it addresses:

- progress made towards a goal
- effectiveness of performance strategies used to reach a goal
- successful achievement of a goal.

The factors that influence the effectiveness of frontline workers in the AOD field are complex. Goal setting represents one of many possible workforce development tools that are likely to significantly benefit the performance effectiveness of frontline workers.

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