Understanding the differential benefits of training for the unemployed.

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Abstract

This study examined the connection between background variables (such as length of unemployment and number of previous training courses), contextual variables (perceptions of training climate), dispositional variables (positive affect and negative affect), and psychological outcomes for unemployed trainees who attended either a five week occupational skills training program (control group) or the same five week program with an additional two day intervention before the start of the program (treatment group). The trainees in both the treatment and control conditions were found to reduce their levels of psychological distress over the course of a five-week training program. Trainees in the treatment condition who started with the lowest levels of general self-efficacy and the highest levels of psychological distress showed the greatest improvements at time 2 (T2). The measures of length of unemployment, number of previous training courses, and the perceptions of the training climate (with one exception) did not account for any unique variance in either of the well-being measures at time 3 (T3). Positive and negative affect (PA and NA respectively) accounted for 30% of the variance in initial levels of general self-efficacy and 43% of the variance in initial levels of psychological distress. However, PA and NA measured at T1 did not account for any unique variance in the T3 levels of general self-efficacy and psychological distress, after the initial levels of each of the variables were controlled. It was concluded that components of dispositional affect are the main influence on how individuals perceive stimuli in the environment and subsequently regulate their emotional response.

Key words: unemployment, well-being, self-efficacy, training climate, positive affect, negative affect.

No discussion of career development should omit the possibility that a career will include periods of unemployment. The significance of becoming unemployed is that it typically results in reduced levels of psychological well-being (Murphy & Athanasou, 1999), although for those who have left very poor jobs there may in fact be an improvement in well-being (Warr & Jackson, 1987). It is not clear whether the detrimental effects of unemployment are primarily associated with the loss of income and resulting financial strain or the loss of some of the latent benefits of working such as social support and structured routines (Jahoda, 1981).

In order to address the negative effects of unemployment, training interventions have been developed with the aim of improving the mental health of participants so they may better cope with their situation and be more successful in their job search. Several such large-scale training interventions for the unemployed have been developed in the United States (Caplan, Vinokur & Price, 1997; Vinokur, Schul, Vuori & Price, 2000), while similar programs have been trialed in Finland (Vesalainen & Vuori, 1999; Vuori, Siloven, Vinokur & Price, 2002) and Australia (Creed, Hicks, & Machin, 1996; Creed, Machin, & Hicks, 1999). One unresolved issue that has emerged from this research is why training interventions for the unemployed, such as those mentioned above, are more effective for some participants than for others?

The present study was conducted with unemployed adults attending occupational skills training programs delivered by private training providers in south-east Queensland. The treatment group received a pre-training intervention that targeted improvements in trainees' general self-efficacy and psychological well-being, and was followed by a vocational training component that focused on specific job-related skills training. The control group did not receive any pre-training

intervention but participated in the vocational training component. The study

examined the relationship between several background variables (length of

unemployment and attendance at previous training courses), two dispositional

variables (positive affectivity and negative affectivity), trainees' perceptions of the

training environment, and changes in psychological well-being.

Description of the pre-training intervention

The authors have developed a short (two-day) intervention with the specific

aim of improving the mental health and general psychological functioning of

unemployed individuals. This intervention also aimed to improve the participants'

coping strategies used to deal with the problems that result from unemployment (see

Creed et al., 1999). The intervention was based on the cognitive-behavioural therapy

(CBT) approach (e.g., Beck, Rush, Shaw & Emery, 1979), and on the learned

optimism work of Seligman (1990). The cognitive-behavioural model assumes that

thoughts and views of the world determine feelings and consequent behaviour. Creed

at al. found that those attending the CBT-based training intervention demonstrated a

significant improvement in their level of personal functioning and coping skills when

compared to a waiting list control group, and significantly, and in contrast to the

results found for the more typical training courses for the unemployed, these benefits

were maintained for the duration of the follow-up period. The greatest improvements

were achieved by those participants who reported the lowest initial levels of well-

being and coping skills. This study will attempt to explain the differential benefits

that unemployed participants derive from targeted interventions.

Explanations for differential training benefits

Individuals do not all derive similar benefits from training (Creed et al., 1998;

Eden & Aviram, 1993). Creed et al. (1998) found that unemployed individuals with

lower levels of self-esteem when they began a training course showed greater

improvement in their self-esteem than did those with higher initial levels. Eden and

Aviram (1993) found that when they implemented a self-efficacy training course for

unemployed people, it was those with lower levels of self-efficacy who showed

greater improvement over the period of training. We are suggesting that either

contextual variables or dispositional variables will provide the main explanations of

the differential benefits that unemployed trainees derive from targeted interventions.

Contextual influences. A number of contextual factors have been identified

that influence individual reactions to training. These include characteristics of the

learning environment such as opportunity for setting goals for the acquisition of skills

and knowledge, the level of feedback provided, and the level of support that is

received from others in that environment (Machin, 2002). Another area that has been

previously identified as being an important contributor to improvements in individual

well-being is the climate of the training program.

The training climate has been the focus of numerous studies that involved

assessments of school and tertiary classroom settings in order to determine the impact

of the learning environment on student achievements (Fraser, 1981). There is also

evidence that a supportive and encouraging training climate is associated with better

levels of well-being in unemployed trainees, and with improvements in well-being

across time (Creed et al., 1996). Creed, Bloxsome, and Johnston (2001) suggested

that training environments may provide access to the latent functions of work, which

may contribute to better well-being in the unemployed.

In terms of our understanding of the differential benefits that trainees derive

from training, the current study assessed the unique influence of training climate on

participants' well-being. It is likely that the social context of the training groups

influences the individual trainee's levels of psychological well-being, and this study

will attempt to specify the nature of those effects at the individual level.

The inclusion of a pre-training component is also an important contextual

variable. Pre-training programs have been shown to be beneficial in improving self-

efficacy for training, and to be most beneficial to improving self-efficacy when they

focus on verbal persuasion and reducing physiological arousal (Haccoun & Saks,

1998). Under these conditions, the trainees most likely to benefit from pre-training

interventions are those with low levels of self-efficacy and/or high levels of anxiety.

The present study included an evaluation of a pre-training intervention that was

presented prior to an occupational skills program.

Dispositional affect. Creed, Muller, and Machin (2001) demonstrated that

dispositional variables play an important role in explaining levels of psychological

well-being in the unemployed. Creed et al. found that neuroticism was able to account

for 14 percent of the variance of psychological distress. They suggested that

researchers also need to consider other personality variables and the effect they have

in predicting psychological well-being. For example, extraversion has been

implicated as a better predictor of positive rather than negative affect (Larsen &

Ketelaar, 1991) and therefore should be included in studies examining the

psychological well-being of the unemployed.

Measures of dispositional positive and negative affectivity (PA and NA

respectively) have also been found to be an important influence on individual's

subjective well-being (Diener, Suh, Lucas & Smith, 1999). Machin and Fogarty

(2003) found that PA and NA predicted pre-training self-efficacy, which was itself a

mediator of the relationship between both PA and NA, and pre-training motivation.

They concluded that PA and NA were legitimate markers for important and reliable

dispositional traits that predict pre-training self-efficacy and should be included in future training research.

Therefore, PA and NA are important dimensions that have the potential to influence participants' reactions to training. In the current study, PA and NA were included in order to allow the relationship between PA, NA and psychological well-being to be specified. We expect that the participants' initial levels of PA and NA will predict their initial levels of well-being, and that PA and NA will add to the prediction of final levels of well-being after controlling for the participants' initial levels of well-being.

Summary and hypotheses

The current study extended the research previously conducted by Creed et al. (1996, 1998, 2001), by investigating the differential benefits of training for two groups of unemployed trainees. The treatment group received a specially designed intervention immediately prior to their commencing a five-week skills-oriented training program; the second group, which operated as a non-equivalent control, attended the five-week skills-orientated program, but did not receive the pre-training intervention (see Figure 1 for a summary of the design of the study). The aim of the pre-training intervention was to assist trainees to maximise the benefit they would derive from their skills-oriented training by enhancing their levels of general self-efficacy and psychological well-being. Data were collected at three times for the treatment condition and at two times for the control condition. As well as examining the impact of the pre-training intervention on measures of psychological well-being (general self-efficacy and psychological distress), our goal in this study was to disentangle the unique influence of the background variables (length of unemployment and attendance at previous training courses), dispositional variables

(PA and NA), and contextual variables (perceptions of the training environment) on psychological well-being.

Insert Figure 1 about here

The specific hypotheses were that:

H1 For trainees who undertook the pre-training intervention (the treatment condition), psychological well-being (operationalised as general self-efficacy and psychological distress) at the end of the training program (T3) would be significantly better than for those in the control condition. It was also expected that changes in the scores of treatment group from T1 to T2 would be greatest for those with the lowest initial levels of general self-efficacy and highest initial levels of psychological distress. These predictions are based on the work of Creed et al. (1998).

H2 For trainees in both conditions, their length of unemployment and attendance at previous training courses would explain a significant unique proportion of the variance in psychological well-being at T1, but not at T3. This prediction was based on Jahoda's (1981) deprivation model, which suggests that absence from the workforce or other structured activities could explain reduced levels of psychological well-being.

H3 For trainees in both conditions, the measures of PA and NA would explain a significant unique proportion of the variance in psychological well-being at T1 and at T3 (after controlling for T1 levels). As the T2 data only included those participants in the pre-training intervention, the relationships between both PA and NA and psychological well-being at T2 were not analysed. While there have not been any studies with the unemployed that have attempted to model the influence of both PA and NA on psychological well-being, these predictions were

based on the research with employed trainees reported in Machin and Fogarty (2003).

H4 For trainees in both conditions, their perceptions of the training climate at T3 would account for significant unique variance in levels of psychological well-being at T3 (after controlling for T1 levels). These predictions are based on work reported by Creed et al. (1996).

Method

Participants

Participants were 182 unemployed adults attending occupational skills training programs conducted by private training providers in south-east Queensland. The participants represented a broad sample of metropolitan-based unemployed people who were registered for work with the national employment agency. All participants were eligible for employment retraining courses and continued to receive unemployment benefits during their training.

Of the 119 initial participants in the treatment condition, 95 (80%) completed the two-day pre-training intervention, and 83 (70%) subsequently completed the occupational skills training program. The other 63 trainees participated only in the occupational skills training program and were assigned to the control condition. Forty-six (73%) of these subsequently completed the occupational skills training program. General demographic information for both conditions is presented in Table 1. Due to the skewed distributions for Months Unemployed, all scores for this variable were transformed using a square root transformation.

Insert Table 1 here

Pre-training intervention

The pre-training intervention was aimed at improving the psychological well-being and general self-efficacy of unemployed adults. The goals of the course were to leave trainees with measurable and lasting benefits rather than to provide training which would allow them to "feel good" in the short-term. To meet this criterion, the course had a solid theoretical and research base. A program based on the cognitive-behavioural therapy (CBT) approach (Beck et al., 1979; Seligman, 1990), the self-management training research of the Michigan Prevention Research Centre (Caplan, et al., 1997), and the thought self-leadership training of Neck and Manz (1996) was used to meet these requirements. A course outline is available by contacting the first author.

The occupational skills program was a computer and administrative skills course conducted over a five-week period on a full-time basis. The pre-training intervention was conducted for 2 days immediately prior to the occupational skills program, with eight courses being conducted.

Measures

The questionnaires contained standardised measures of General Self-efficacy, Psychological Distress, Positive and Negative Affectivity, and Training Climate (only at T3).

General Self-efficacy (GSE) was measured using the 10-item General Self-efficacy Scale (Schwarzer, 1993). Schwarzer, Bäßler, Kwiatek, Schörder and Zhang (1997) demonstrated cross-cultural stability for the GSE scale and good reliabilities (.81 to .91). In the present study, internal reliability coefficients were also high (.88 at T1 to .92 at T3).

Psychological Distress was measured using the 12-item version of the General Health Questionnaire (GHQ; Goldberg, 1978). The 12-item version has been

recommended for use in occupational studies, and has been used widely by

researchers in this area (Banks et al., 1980). Rowley and Feather (1987) reported an

internal reliability coefficient of .89 with their group of unemployed subjects, while

the coefficients for the current study ranged from .86 at T1 to .88 at T3.

Positive and Negative Affectivity (PA and NA) were measured at T1 and T3

using the 20-item Positive and Negative Affect Schedule (PANAS: Watson, Clark &

Tellegan, 1988). There are 10 items that are markers of PA and 10 items that mark

NA. Markers of PA include items such as: "I feel interested" and "I feel excited",

while markers of NA include items such as: "I feel distressed" and "I feel hostile".

The instructions used for the current study asked respondents to indicate on a five-

point scale the extent to which, on average, they have felt this way over the last week.

The internal reliabilities for the two affectivity scales in the Watson et al. study when

rated over the period of the previous few weeks were .87 for PA and .87 for NA,

while in the current study, internal reliabilities ranged from .92 to .94 for PA, and

from .89 to .91 for NA.

Training climate (TC) was measured at T3 using a modified twenty-five item

short form of the Individualised Classroom Environment Questionnaire (ICEQ:

Fraser, 1990). The ICEQ contains five sub-scales: (a) Personalisation (TC1) measures

the opportunity for trainees to interact with the trainer on areas of concern for

personal welfare and social growth, (b) Participation (TC2) measures how much

trainees are encouraged to actively engage in the training room rather than be passive

recipients, (c) Independence (TC3) measures the extent to which trainees are able to

make decisions and have control over their own learning and behaviour, (d)

Investigation (TC4) measures the extent of encouragement of inquiry, investigation

and individual problem solving, and (e) Differentiation (TC5) measures the extent to

which trainees are treated individually. The ICEQ has been used in Australian studies

(Creed et al., 1996), and has internal reliabilities for the five scales in the range .69 to

.85 (Fraser, 1990). In the current study, internal reliabilities ranged from .65 to .82.

Procedure

The design can be considered pre-test/post-test quasi-experimental with

follow-up, utilising a non-equivalent control group to make comparisons with the

training condition (Judd, Smith, & Kidder, 1991). Participants were assigned to the

intervention and control conditions in a naturally occurring manner. Participants in

the treatment condition completed questionnaires at the beginning (T1) and at the end

(T2, that is, 2 days after T1) of the pre-training intervention, and again at the

conclusion of their occupational skills programs (T3, that is, 5 weeks after T2).

Measures of GSE, GHQ, PA, and NA were collected at each of these times. The

measure of training climate (ICEQ) was only collected at the end of the occupational

skills programs. Participants in the control conditions completed questionnaires at T1

(including measures of GSE, GHQ, PA, and NA) and at T3 (that is, 5 weeks after T1,

including measures of GSE, GHQ, PA, NA, and the ICEQ).

Analyses

The initial analyses consisted of repeated measures analyses of variance

(ANOVAs) that assessed whether the means of the well-being variables were

significantly different at T3. These analyses were conducted using T1 and T3 data

only because there were no data collected for the control condition at T2. Additional

repeated measures ANOVAs assessed whether participants in the treatment condition

who had lower initial levels of general self-efficacy and higher initial levels of

psychological distress demonstrated greater improvement in their scores at T2 than

the better functioning participants. Hierarchical regression analyses were then

conducted using Statistical Package for the Social Sciences (SPSS) version 10.0, to

assess the unique contributions of each of the three types of variables to the

prediction of well-being at T1 and T3.

Results

Independent-sample, two-tailed t-tests and chi-square tests indicated no

significant between-group differences at T1 for the number of Previous Courses

completed, $\chi^2 (2) = 5.59$, $p > .05$, Months Unemployed, $t (180) = -0.85$, $p > .05$, or

Education level, $\chi^2 (2) = 3.27$, $p > .05$. However, there were significant differences

between the treatment condition and control condition on Age, $t (172) = -2.30$, $p <$

.05, and Gender, $\chi^2 (1) = 6.20$, $p < .05$. Similarly, t-tests were conducted to determine

if there were differences between the treatment and the control conditions on the

dispositional and well-being variables at T1. These results demonstrated that the only

significant difference at T1 was for Positive Affect, $t (171) = 2.34$, $p < .05$. Even

though differences were identified at T1 between the treatment and control conditions

on two of the demographic variables and on one of the dispositional variables, these

differences are not expected to threaten the validity of any conclusions that are drawn

from the analyses. The means and standard deviations of the treatment and control

conditions for the dispositional, well-being, and training climate variables at each of

three times (where data were available) are displayed in Table 2.

Insert Table 2 here

Analyses pertaining to H1

In order to assess the first hypothesis that psychological well-being

(operationalised as general self-efficacy and psychological distress) at the end of the

training program (T3) would be significantly greater for those in the treatment

condition, two, two-way repeated measures ANOVAs were performed using T1 and

T3 data for GSE and GHQ, with condition membership (treatment or control) as the

between subjects factor. Neither interaction term was significant with $F (1, 120) =$

2.15, $p > .05$ for GSE, and $F (1, 121) = .12$, $p > .05$ for GHQ. Inspection of the 95%

confidence intervals around the four means indicated GSE T3 and GHQ T3 scores for

the treatment condition were not significantly different from those same scores for the

control condition. There was no significant main effect for time for GSE with $F (1,$

120) $= .53$, $p > .05$. However, for GHQ, there was a significant main effect for time

with $F (1, 121) = 12.43$, $p < .001$. Therefore, while the psychological well-being

scores at T3 for the treatment condition were no different from the control condition,

the levels of psychological distress for the combined group of trainees had declined

significantly.

A further analysis was conducted solely based on those in the treatment group

using the median score of GSE T1 for the treatment condition to split the participants

into High and Low GSE groups and then testing the interaction between Time

(T1/T2/T3) and GSE T1 status (High/Low). A significant interaction effect was found

with $F (2, 67) = 6.72$, $p < .01$. Inspection of the 95% confidence intervals around the

means confirmed that only those participants who had Low GSE T1 scores

demonstrated significant improvement between T1 and T2 (see Figure 2), although

this improvement was not maintained until T3.

Insert Figure 2 about here

Similar analyses were then conducted using the median score of GHQ T1 for

the treatment group to split the participants into High and Low GHQ groups and then

testing the interaction between Time (T1/T2/T3) and GHQ T1 status (High/Low). A

significant interaction effect was found with $F (2, 68) = 20.24$, $p < .001$. Inspection of

the 95% confidence intervals around the six means confirmed that only those

participants who had High GHQ T1 scores demonstrated significant improvement

between T1 and T2, and that this improvement was maintained over the next five

weeks (see Figure 2).

Therefore, differential benefits were derived from the treatment condition

with only those participants in the treatment condition who had the lowest initial

psychological well-being scores demonstrating improvements between T1 and T2. At

T3, some of these improvements had reversed, and the psychological well-being

scores for the treatment condition were no different from the control condition.

The data from the treatment and control groups were combined for the

subsequent analyses.

Analyses pertaining to H2, H3, and H4

The first part of the second hypothesis predicted that, for both conditions,

trainees' length of unemployment and attendance at previous training courses would

explain a significant unique proportion of the variance in psychological well-being at

T1. The first part of the third hypothesis predicted that, for both conditions, the

measures of PA and NA taken at T1 would explain a significant unique proportion of

the variance in psychological well-being at T1. The correlations between all variables

at T1 and T3, which indicate that the variables are suitable for inclusion in a

regression analysis, are reported in Table 3.

Insert Table 3 here

In order to test these predictions, GSE T1 and GHQ T1 were regressed

separately on PA T1, NA T1, Months Unemployed and number of Previous Courses.

The results are displayed in Table 4. The results show that PA T1 and NA T1 both

predicted significant unique variance in GSE T1 (squared semipartial correlations

were .22 and .08 for PA and NA respectively) and GHQ T1 (squared semipartial

correlations were .26 and .27 for PA and NA respectively), while neither Months

Unemployed nor number of Previous Courses was able to account for any unique

variance. The overall R squared values were $R^2 = .31$ (Adj. $R^2 = .29$), $F(4, 153) =$

16.87, $p < .001$ for GSE T1 and $R^2 = .46$ (Adj. $R^2 = .45$), $F(4, 153) = 33.13$, $p < .001$

for GHQ T1.

Insert Table 4 here

The second part of Hypotheses 2 and 3, and the fourth hypothesis concerned

the ability of Months Unemployed, number of Previous Courses, PA, NA and

perceptions of the training climate at T3 to explain significant unique proportions of

the variance in psychological well-being at T3 (after controlling for T1 levels).

In order to test these predictions, GSE T3 and GHQ T3 were regressed

separately on their respective T1 scores (entered in step 1), PA T1, NA T1, Months

Unemployed, number of Previous Courses (all entered in step 2), and all five TC

variables (entered in step 3). The results are displayed in Table 5. The results show

that, after accounting for their respective T1 levels of GSE and GHQ, PA T1 and NA

T1 were not able to predict significant unique variance in GSE T3 (squared

semipartial correlations were now .02 and .00 for PA T1 and NA T1 respectively) and

GHQ T3 (squared semipartial correlations were now .00 and .03 for PA T1 and NA

T1 respectively), while Months Unemployed and number of Previous Courses were

still unable to account for any unique variance. One of the training climate measures

was able to account for significant unique variance in GSE T3 with TC3

(Independence) having a squared semipartial correlation of .04 and a β of .17, $t =$

2.11, $p < .05$. The R squared (change) values were $\Delta R^2 = .02$, $F(4, 107) = .92$, $p >$

.05, after step 2 and $\Delta R^2 = .09$, $F(5, 102) = 3.12$, $p < .05$, after step 3 for GSE T3,

reflecting the significance of TC3 as a predictor of GSE T3. In addition, the R

squared (change) values were $\Delta R^2 = .04$, $F(4, 108) = 1.28$, $p > .05$, after step 2 and

$\Delta R^2 = .03$, $F(5, 103) = .84$, $p > .05$, after step 3 for GHQ T3. These results confirmed

the predictions in the second part of Hypothesis 2, but are generally at odds with the

predictions in the second part of Hypothesis 3 and Hypothesis 4.

Insert Table 5 here

Further analyses were also conducted (but not reported here to save space) to

examine whether using the T3 measures of PA and NA instead of the T1 measures

would alter the results. The main difference between the results was that PA T3 and

NA T3 were both significant predictors of GSE T3 (squared semipartial correlations

were .30 and .04 for PA and NA respectively) and GHQ T3 (squared semipartial

correlations were .23 and .23 for PA and NA respectively). Also, none of the training

climate measures was able to account for significant unique variance in either GSE

T3 or GHQ T3. This result confirmed that when PA and NA were measured at the

same time as well-being, the variables were more likely to be correlated than when

measured at different times.

Discussion

This study reported on the effects of a pre-training intervention specifically

designed to improve the psychological well-being (General Self-efficacy and

Psychological Distress) of unemployed trainees. As well as examining the impact of

the pre-training intervention on measures of psychological well-being, the ability of

background variables (length of unemployment and attendance at previous training

courses), dispositional variables (PA and NA), and contextual perceptions of the

training environment to predict post-training levels of psychological well-being

variables were examined. The aim was to identify variables that might be able to explain the improvements in well-being that have been found in previous training programs for the unemployed.

The pre-training intervention was successful at improving General Self-efficacy of those participants in the treatment condition who initially reported lower levels of General Self-efficacy, although the improvements reversed somewhat over a five-week period after the intervention. Changes also occurred in the levels of Psychological Distress, with those who initially reported higher distress showing the greatest improvements. Although these changes were maintained over a five-week period after the intervention, the treatment and control conditions reported similar levels of Psychological Distress at the end of the program.

These results support the prediction that participants would experience differential benefits from the pre-training intervention and are consistent with previous research by the same authors (Creed et al., 1999). Creed et al. have also demonstrated that interventions based on the CBT approach (Beck, et al., 1979), and on the learned optimism work of Seligman (1990), had a longer lasting positive effect on participant's well-being, rather than just a short-term influence. This study found that the benefits of the pre-training intervention were lessened after five weeks of additional skills-based training suggesting that the subsequent training may have had a strong influence on levels of well-being that swamped the effects of the short, two-day, pre-training intervention. The current study has provided partial support for the positive impact of this type of pre-training intervention, while recognising the powerful influence that the longer program had on the psychological well-being of the participants.

The second focus of the current study was to examine the unique influence of various predictors on psychological well-being at the beginning and end of a training program. The second hypothesis predicted that participants' length of unemployment and attendance at previous training courses would explain a unique slice of the variance in psychological well-being at T1 but not at T3. The basis for this prediction was the work of Jahoda (1981) that has linked reduced access to the latent functions of employment with lowered levels of well-being. Unfortunately, the number of Months Unemployed and number of Previous Training courses were not predictive of either the well-being measures at T1 or the well-being measures at T3. While it could be concluded that these results do not support Jahoda's deprivation model, it must be remembered that the participants were unemployed on average for over 36 months for those in the treatment condition and for over 52 months for those in the control condition. The length of unemployment may be related to levels of well-being in the early stages of unemployment, but this relationship may change after long periods of exposure to unemployment. It is also possible that attendance at previous training courses has a positive benefit that is eroded after further exposure to unemployment.

A more precise test of the hypothesis relating to the role of the latent functions of employment and training would be possible by using a scale that directly measures the extent to which the person has been able to access the following categories of experience that are unintended or latent functions of employment: imposed time structure on the waking day, contacts and shared experiences with others outside of the nuclear family, collective goals and purposes, imposed status and social identity, and enforced activity. It should not be assumed that people who have been unemployed for similar lengths of time have had equal access to these latent benefits. Muller, Creed, Waters and Machin (2000) developed and tested an instrument that

allows researchers to investigate the relative contribution of each of these constructs to psychological well-being. Creed and Macintyre (2001) have recently demonstrated that these individual latent benefits do have different connections with psychological well-being.

The third hypothesis predicted that PA and NA would be significant predictors of General Self-efficacy and Psychological Distress at T1 and T3. This was partly supported with both PA and NA found to be strong predictors of Psychological Distress and General Self-efficacy at T1. However, PA T1 and NA T1 were not significant predictors of either Psychological Distress or General Self-efficacy at T3. This result confirms other research that positive affect has at least as much influence on psychological well-being as that exerted by negative affect (Diener et al., 1999). In fact, the combination of these two predictors was able to account for 30% of the variance in initial levels of General Self-efficacy and 43% of the variance in initial levels of Psychological Distress. Further analyses (not reported in order to save space) found that the addition of PA and NA (when measured at T3) also accounted for a significant slice of the variance in the T3 levels of General Self-efficacy (34%) and Psychological Distress (46%). Therefore, it can be concluded that the levels of psychological well-being reported by the participants were strongly linked to dispositional affect. We agree with Judge and Larsen (2001) that dispositional variables are the main influences on how individuals perceive stimuli in the environment and subsequently regulate their emotional response. A combination of PA and NA should be included in future research into the effectiveness of training programs for the unemployed.

The fourth hypothesis predicted that perceptions of the training environment would also account for a unique slice of the variance in T3 levels of General Self-

efficacy and Psychological Distress. The basis for this prediction was also Creed et al.'s (1996) research that has linked the social context of the training groups with trainees' levels of psychological well-being at the individual level. This prediction was generally not supported, apart from Independence being a significant predictor of General Self-efficacy at T3 (uniquely accounting for 4% of the variance). The five training climate scales did not significantly add to the prediction of Psychological Distress at T3. The main reason why aspects of the training climate failed to account for any unique variance in General Self-efficacy (apart from the one exception) or Psychological Distress is the strong influence of prior level of well-being, taken at the very start of the intervention or training program. These levels have been shown to be strongly predicted by measures of dispositional affect (PA and NA). In previous studies (Creed et al., 1996), measures of dispositional affect were not included and their influence was not assessed. Therefore, it can be concluded that the final levels of psychological well-being reported by the participants were not a function of the participants' perceptions of the training climate after the participants' prior levels of well-being were controlled.

There are several limitations that apply to this study. First of all, the study relied on self-reports of background variables, affective states, perceptions of the training climate, and psychological well-being. This meant that there was an unknown amount of common method variance in the measures of association between the variables. Diener et al. (1999) reviewed a large amount of research in the area of subjective well-being and virtually all of the findings they described were based on self-report measures using cross-sectional designs. One strength of the current study was the use of a longitudinal design to assess the contribution of

background variables, dispositional variables and perceptions of the training climate

to the prediction of psychological well-being at different times.

A second issue concerned the length of time (five weeks) between the

completion of the pre-training intervention and when the trainees completed their

vocational training. Mid-course evaluations that captured some of the changes that

were occurring during the vocational training could provide a different picture of the

influence of the training climate variables. Finally, it would be beneficial to

incorporate a number of other measures into the evaluation of the pre-training

intervention and the vocational training program such as the trainees' reactions, their

learning outcomes, and their post-training intentions and behaviour (see Warr, Allan

& Birdi, 1999).

Conclusions

Training programs for the unemployed have focused on developing

participants' self-efficacy and ameliorating the negative effects of being unemployed.

There was evidence that the pre-training intervention developed by the authors was

able to raise self-efficacy and reduce distress, especially for those participants in the

treatment condition who had the lowest initial levels of General Self-efficacy and

highest initial levels of Psychological Distress. In addition, participation in the five-

week skills-based training program also resulted in a significant reduction in

psychological distress. Further analyses demonstrated that participants' final levels of

psychological well-being were not predicted by their number of months unemployed,

their number of previous training courses, or their perceptions of the training climate.

However, participants' dispositional affectivity was a strong predictor of the

differential benefits that they derived from the skill-based training program.

Therefore, the best explanation of these results is that trainees' perceptions of the

training program were being coloured by their affective dispositions while the

training also contributed to both more positive and fewer negative experiences. This

explanation suggests a modification to Jahoda's deprivation model to incorporate

both a cognitive appraisal process and an affective self-regulation process.

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Table 1

Demographic Variables for Treatment and Control Conditions

Variable		Treatment condition (*n* = 119)	Control condition (*n* = 63)
Gender	1 = Female	103 (87%)	45 (71%)
	2 = Male	16 (13%)	18 (29%)
Age (Years)	*M*	32.63	36.57
	SD	10.60	11.15
	Range	16-56	18-54
Months	*M*	36.71	52.48
Unemployed	*SD*	53.17	77.30
	Range	0-264	0-417
Previous Training	1 = First course	34 (32%)	21 (36%)
	2 = One previous course	26 (25%)	22 (38%)
	3 = Two or more courses	46 (43%)	15 (26%)
Education	1 ≤ Year 11	40 (35%)	30 (49%)
	2 = Year 11/12 &/or TAFE	59 (52%)	24 (39%)
	3 ≥ Year 12	14 (13%)	7 (12%)

Table 2

Means and Standard Deviations of all variables at T1, T2, and T3.

	Treatment condition		Control condition		
	M	*SD*	*M*	*SD*	*t*
1. GSE T1	31.47	4.93	31.53	4.92	-.08
2. GSE T2	32.30	5.04			
3. GSE T3	31.70	5.36	30.71	4.92	1.02
4. GHQ T1	12.27	6.36	14.21	5.94	-1.97
5. GHQ T2	9.51	5.64			
6. GHQ T3	10.50	6.31	11.09	5.23	-.53
7. PA T1	37.21	8.78	33.90	9.00	2.34*
8. PA T3	35.98	9.09	34.07	7.96	1.19
9. NA T1	21.25	8.51	19.43	6.98	1.42
10. NA T3	18.27	7.70	16.43	5.60	1.42
11. TC1 - Personalisation (T3)	3.89	.75	3.60	.78	2.07*
12. TC2 - Participation (T3)	4.02	.63	3.75	.64	2.36*
13. TC3 - Independence (T3)	3.56	.68	3.63	.66	-.64
14. TC4 - Investigation (T3)	3.30	.68	3.33	.61	-.21
15. TC5 - Differentiation (T3)	2.92	.80	3.02	.84	-.69

Note. GSE = General Self-efficacy, GHQ = General Health Questionnaire, PA =

Positive Affectivity, NA = Negative Affectivity, and TC = Training Climate. *$p < 05$.

Table 3

Intercorrelations of all variables at T1, and T3.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. GSE T1	1.00													
2. GSE T3	.56***	1.00												
3. GHQ T1	-.34***	-.23**	1.00											
4. GHQ T3	-.12	-.41***	.44***	1.00										
5. PA T1	.49***	.42***	-.51***	-.25**	1.00									
6. PA T3	.33***	.60***	-.25**	-.51***	.61***	1.00								
7. NA T1	-.32***	-.18*	.52***	.34***	-.15*	-.02	1.00							
8. NA T3	-.20*	-.32***	.41***	.56***	-.09	-.19*	.52***	1.00						
9. TC1	.06	.25**	-.13	-.18*	.26**	.41***	.09	-.07	1.00					
10. TC2	.17	.29**	-.16	-.18*	.35***	.36***	-.01	-.11	.61***	1.00				
11. TC3	.02	.17	.08	-.02	.02	.20*	.13	.03	.15	.15	1.00			
12. TC4	.16	.29**	-.04	-.08	.28**	.31***	.06	-.08	.58***	.52***	.07	1.00		
13. TC5	.07	-.03	.10	.07	-.08	.04	.12	.13	.19*	-.04	.27**	-.02	1.00	
14. Mths UE	.08	.08	-.01	-.06	.00	.20*	.06	-.10	.18*	.05	-.16	.14	.09	1.00
15. Prev. Tr.	.01	-.08	.00	.15	.03	-.09	.07	.08	.06	-.05	-.24**	.02	.03	.06

Note. GSE = General Self-efficacy, GHQ = General Health Questionnaire, PA = Positive Affectivity, NA = Negative Affectivity, TC = Training Climate, Mths UE = Square root of Months Unemployed, and Prev. Tr. = Previous Training. $*p < .05$. $**p < .01$. $***p < .001$.

Table 4

Regression of GSE T1 and GHQ T1 on other T1 variables.

Predictors	Dependent Variables					
	GSE T1			GHQ T1		
	β	*t*	*sr*	β	*t*	*sr*
Mths UE	.09	1.36	.11	-.04	-.64	-.05
Prev. Train.	.01	.10	.01	-.01	-.22	-.02
PA T1	.45	6.56***	.47	-.44	-7.35***	-.51
NA T1	-.26	-3.73***	-.29	.46	7.61***	.52
After Step 1:	$R^2 = .31$ (Adj. $R^2 = .29$)			$R^2 = .46$ (Adj. $R^2 = .45$)		
	$F(4, 153) = 16.87, p < .001$			$F(4, 153) = 33.13, p < .001$		

Note. GSE = General Self-efficacy, GHQ = General Health Questionnaire, PA =

Positive Affectivity, NA = Negative Affectivity, Mths UE = Square root of Months

Unemployed, Prev. Train. = Previous Training, and *sr* is the semipartial correlation.

*p < .05. **p < .01. ***p < .001.

Table 5

Regression of GSE T3 and GHQ T3 on their respective T1 scores, PA T1, NA T1, and the training climate variables.

Predictors	Dependent Variables					
	GSE T3			GHQ T3		
	β	*t*	*sr*	β	*t*	*sr*
T1 score	.58	7.45***	.58	.43	5.07***	.42
After Step 1:	$R^2 = .33$ (Adj. $R^2 = .33$)			$R^2 = .19$ (Adj. $R^2 = .18$)		
	$F (1, 111) = 55.54, p < .001$			$F (1, 112) = 25.72, p < .001$		
Mths UE	.04	.51	.05	-.07	-.81	-.08
Prev. Train.	-.01	-1.06	-.10	.12	1.34	.13
PA T1	.13	1.44	.14	-.05	-.46	-.05
NA T1	.04	.52	.05	.17	1.64	.16
After Step 2:	$R^2 = .36$ (Adj. $R^2 = .33$)			$R^2 = .22$ (Adj. $R^2 = .18$)		
	$\Delta F (4, 107) = .92, p > .05$			$\Delta F (4, 108) = 1.28, p > .05$		
TC1	.14	1.23	.12	-.16	-1.28	-.13
TC2	.07	.67	.07	.00	.02	.00
TC3	.17	2.11*	.21	-.09	-.95	-.09
TC4	.07	.68	.07	.01	.10	.01
TC5	-.10	-1.23	-.12	.03	.30	.03
After Step 3:	$R^2 = .44$ (Adj. $R^2 = .39$)			$R^2 = .25$ (Adj. $R^2 = .19$)		
	$\Delta F (5, 102) = 3.12, p < .05$			$\Delta F (5, 103) = .84, p > .05$		

Note. GSE = General Self-efficacy, GHQ = General Health Questionnaire, PA = Positive Affectivity, NA = Negative Affectivity, Mths UE = Square root of Months Unemployed, Prev. Train. = Previous Training, and *sr* is the semipartial correlation.

*p < .05. **p < .01. ***p < .001.

List of Figures

	Treatment condition (N = 119)	Non-equivalent Control condition (N = 63)
T1	Treatment condition (N = 119)	Non-equivalent Control condition (N = 63)
T2	Treatment condition (N = 95) **[2 days later]**	Skills-based training occurred here
T3	Treatment condition (N = 83) **[5 weeks later]**	Non-equivalent Control condition (N = 46) **[5 weeks later]**