SOCIAL ENTERPRISE AND THE INDIVIDUAL: An examination of a work-integration social enterprise (WISE) and its impact upon unemployed university graduate's self-efficacy and attitudes to enterprise.

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Abstract

This paper reports research that engaged in the evaluation of an intervention programme designed to enhance the employability of a group of unemployed graduates. The evaluation adopted a quasi-experimental intervention research method employing scales, which had been validated in prior research and were designed to measure general self-efficacy (GSE) and attitude to enterprise (ATE). Results revealed that participants displayed higher levels of GSE and ATE after engagement in the programme. Results also revealed the effect of 'behavioural plasticity' on the intervention experiences of unemployed graduate participants. The findings of this study are discussed in relation to programme recruitment and evaluation.

Introduction

The Higher Education Policy Institute (Thompson, 2010) reported high levels of graduate unemployment, which it attributed to a combination of record numbers of graduates entering the job market following the post 1992 expansion of higher education and the effects of the recent recession. This situation has resulted in the availability of funding opportunities for the provision of training programmes designed to enable unemployed graduates to enhance their employability and subsequently find suitable employment. A work-integration social enterprise (WISE) located in Northamptonshire, formed as a result of a partnership between a local university and a regional social enterprise promotion organisation, secured funding to deliver a programme designed to enhance the employability of unemployed graduates. This programme provided the unemployed graduates with a unique opportunity to undertake a programme of post-graduate

study, coupled with a work placement experience. This funded project required evaluation and researchers were appointed to conduct the programme evaluation.

The evaluation of programmes designed to enhance employability can be both simple and complex depending upon whether the focus of the evaluation is on *output*, *outcome* or *impact* (McLoughlin, Kaminski, Sodagar, Khan, Harris, Arnaudo & McBrearty, 2009). *Output* can be defined as the relationship between the number of unemployed graduates accessing the programme and the number who subsequently gain employment. Considering *output* as a method of evaluation is useful for tracking the success of a programme from this particular perspective. However, if *output* is employed as a singular measure, the evaluation will not include important longer-term participant benefits, i.e. *outcome*. An o*utcome* represents positive changes to participant's states of mind that will enhance their future employability. *Impact* is an even longer-term benefit and is the *impact* on society resulting from the reduction of graduate unemployment, for example, reduced unemployment benefits, lower impact on the health service and higher income tax receipts.

The current research focuses on the *output* and *outcome* benefits for the unemployed graduates who engaged in the employment enhancement programme described above. *Impact* was not assessed on this occasion as it did not form part of the evaluation brief and would require the application of assessment techniques beyond the scope of this evaluation, for example, 'Social Return On Investment' (SROI) (NEF, 2008) or Social Impact Measurement of Social Enterprises (SIMPLE) McLoughlin *et* al. (2009). *Output* was recorded by the programme providers and will be reported in conjunction with the *outcome* measures reported in the results section of this

paper. Robust, valid and reliable measures of *outcome* were sought by the evaluators by examining prior research that investigated this phenomenon.

Prior Research

Securing robust, valid and reliable tools for the evaluation of work-integration programmes presents a range of problems. One major problem is that programme providers often base the content of their programmes around conventional, commonsense understandings of social problems and their treatments, without considering the appropriate social science theory (Chen & Rossi, 1980). This approach to programme design does not facilitate the application of robust, valid and reliable evaluation procedures and can lead to the application of less rigorous forms of programme evaluation. Chen & Rossi (1980) propose the 'Multi-Goal, Theory Driven Approach to Evaluation', which advocates that programme providers should collaborate with evaluators to agree the outcomes to be evaluated. These outcomes should be based on 'official goals', determined by the providers (i.e. *output*) and 'others', derived from social science knowledge and theory pertaining to the social problem in question (i.e. *outcome*), in this case graduate unemployment.

Research in the social sciences has established the negative effects that unemployment has upon an individual's psychological state and well-being. Such negative effects consist of elevated levels of depression (Feather & O'Brien, 1986), greater psychological distress (Henwood & Miles, 1987), lower self-esteem and confidence (Wanberg, Watt & Rumsey, 1996; Goldsmith, Veum, & Darity William, 1997) and poorer psychological well-being (McKee-Ryan, Song,

Wanberg, Kinicki, 2005). Kaufman (1982), Feather & Bond (1983) and Cassidy & Wright (2008) have shown that unemployed graduates are equally susceptible to such negative impacts. However, whilst the link between such constructs and unemployment is well documented, this does not validate them as suitable as measures of intervention performance. Indeed, psychological traits such as self-esteem are indicators of well-being, rather than being predictors of behaviour. Therefore, a different approach is required to allow researchers to capture general improvement trends and reveal relationships between the *outcome* construct measured and any potential output. These relationships can be revealed through the application of robust, valid and reliable evaluation tools validated in prior research.

Self-Efficacy

Prior research provides evidence of predictive relationships between increased self-efficacy, job searching and job procurement (Creed, Bloxsome & Johnson, 2001; Eden & Aviram, 1993; Meyers & Houssemand, 2010; Wenzel, 1993) and entrepreneurship (Aviram, 2006; Nabi, Holden & Walmsley, 2010). The Bandurian concept of self-efficacy relates to an individual's belief in their ability to complete a task and the strength with which this belief is held (Bandura, 1977; 1997). According to Eden & Aviram (1993) there is a reciprocal relationship between self-efficacy and employment status, which can lead to entrapment in a vicious cycle of job loss, reduced self-efficacy, lack of job seeking effort and prolonged unemployment. Indeed, research by Meyers & Houssemand (2010) found that self-efficacy levels decreased the longer a person remained unemployed, indicating that interventions designed to raise levels of self efficacy in unemployed individuals may be beneficial particularly for the longer-term unemployed. Eden &

Aviram (1993) propose that an intervention designed to boost self-efficacy can result in intensification of job search activities and subsequent reemployment. Despite a tendency towards the employment of specific self-efficacy scales (SSE) in prior organisational psychology research (Bandura, 1986; Locke & Latham, 1990; Caplan, Vinokur, Price & van Ryn, 1989; Gist, Schwoerer, & Rosen, 1989), personality psychologists view self-efficacy as a generalised trait that influences an individual's expectation of mastery in new situations (Eden, 1988; Eden & Kinnar, 1991; Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982).

Eden & Aviram (1993) examined the impact of training, specifically designed to boost general self-efficacy (GSE), on unemployed participants' job search activities and subsequent reemployment. Participants were 88 unemployed individuals from urban Tel Aviv, who responded to an invitation to take part in a reemployment workshop. The participants were randomly assigned to experimental (n=43) and control groups (n=45) with the experimental group only undertaking the intervention training. A 17 item GSE scale (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982) was employed to measure GSE in both groups at two points in time. For the experimental group, questionnaires were completed prior to and after the intervention training. For the control group, questionnaires were completed at an interval of two months with no intervention training taking place during the two month period. After completing the first questionnaire, the control group were informed that the course was full but that they could be included in future training programmes. Eden & Aviram (1993) reported that participants with higher levels of GSE, occurring naturally or resulting from the intervention, were more likely to become reemployed.

Creed, Bloxsome & Johnson (2001) conducted a study with 161 unemployed individuals, 109 allocated to an 'experimental' group and 53 to a 'control' group. Creed *et* al. (2001) reported immediate and long term increases in 'well-being' and 'confidence' for unemployed individuals after engaging in 'community-based occupational skills/personal development training courses' that ran for a period of 4-6 weeks. Employing the Rosenberg Self-esteem Scale (RSE) and the Job-procurement Self-efficacy Scale (JPSE) in a pre and post intervention study Creed *et* al. (2001) found increases in 'self-esteem' and 'job-search self-efficacy' when comparing experimental and control groups in an quasi-experimental intervention study. The training course intervention consisted of generic occupational skills training (e.g. computer and keyboard skills), specific occupational skills training (e.g. warehousing, retail), and preparation for interview (e.g. grooming and self-confidence). The relationships between the content of the training courses, the evaluation tools employed (RSE & JPSE) and the reported outcomes ('well-being' and 'confidence') appear somewhat tenuous and exemplify the need for provider and evaluator to agree common outcomes (Chen & Rossi, 1980).

Meyers & Houssemand (2010) and Wenzel (1993) also reported a relationship between higher levels of self-efficacy and job-procurement. Meyers & Houssemand (2010) employed the GSE scale (a modified version of Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982) in their research and reported that psychological dimensions, such as GSE, can predict successful job seeking outcomes but only for people who have difficulty finding employment. They speculated that higher GSE was more advantageous to those applicants who reached the interview stage than those at the beginning of the application process and that greater levels of persistence in job-seeking were displayed by participants with higher levels of GSE. Wenzel

(1993) stressed the importance of 'locus of control', suggesting that individuals who believe outcomes are not under personal control may not engage in activities designed to improve self-efficacy. This means that perceived personal control maybe an antecedent to the development of self-efficacy (Wenzel, 1993).

One of the more interesting findings of Eden & Aviram's (1993) research was the non-uniform manner in which participants responded to the intervention. Eden & Aviram (1993) reported that participants with low initial levels of GSE had statistically significant increases in GSE after training when compared with participants with high initial levels. Interpretation of this result indicated higher levels of behavioural plasticity in the participants who displayed lower initial levels of GSE. Behavioural plasticity refers to the tendency of individuals who display relatively low levels of the concept being measured prior to an intervention, scoring significantly higher levels of the same concept after the intervention, when compared to individuals who displayed high levels of the concept to begin with (Brockner, 1988). Later research (Creed, *et* al., 2001) provided support for the concept of behavioural plasticity reported by Eden & Aviram (1993). Creed, *et* al. (2001) found that participants with lower initial self-esteem and job-search self-efficacy benefited more from the intervention training than their higher initial level counterparts. However, Creed, *et* al. (2001) call for caution and more research to confirm this effect before employing it to screen applicants for this type of training programme.

Enterprise Potential

The research reviewed above relates to individuals attempting to resolve their unemployment situation by securing employment but for some individuals, the route away from unemployment can be self-employment. Prior research has examined the relationship between entrepreneurship and self-efficacy in four sample groups: unemployed, employed, entrepreneurs and graduates (Aviram, 2006; Nabi, Holden & Walmsley, 2010).

Aviram (2006) examined the relationship between the 'propensity to act' on entrepreneurial intention and self-efficacy. Aviram (2006) proposed that inclination towards entrepreneurship requires relatively high levels of self-efficacy to enable an individual to convert entrepreneurial intention into action. This proposition was based on the findings of prior research (Bandura, 1986; Krueger, 1993; Krueger & Brazeal, 1994). Aviram (2006) adopted a quantitative approach to research and reported a significant correlation between 'propensity to act' and self-efficacy. Nabi *et* al. (2010) adopted a qualitative approach to research through conducting 'story telling interviews' based on procedures validated in prior research (Bujold, 2004; Cochran, 1990; Collin & Young, 1992; Hamilton & Smith, 2003; Johansson, 2004; Savickas, 2002). Nabi *et* al. (2010) interviewed 15 participants who were identified as recent graduates with a wide range of degrees who were deemed to have started their own businesses (Nabi *et* al., 2010). Nabi *et* al. (2010) reported two dimensions as outcomes of their research (1) the entrepreneurial maturity of the individual and (2) the complexity of the business idea. In relation to the former dimension, an important sub-dimension was 'understanding of the self' in order to build an entrepreneurial identity. This entrepreneurial identity included the concept of self-efficacy and one of the

researchers' recommendations based on research findings was to provide counsellors to assist students to make the transition from student to entrepreneur by helping them to develop their self-efficacy beliefs. Nabi *et* al. (2010) also report the importance of work placements as influential turning points in their participants viewing themselves as potential entrepreneurs.

Summary

The prior research reviewed above suggests a relationship between enhanced employability and self-efficacy and that the relationship between the two concepts is reciprocal (Eden & Aviram, 1993). In addition, a substantial body of research advocates the use of general self efficacy as an appropriate tool to measure increased mastery in new situations (Eden, 1988; Eden & Kinnar, 1991; Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982). Previous research also underlines the importance of employing an appropriately diverse range of evaluation tools that facilitate a 'Multi-Goal, Theory Driven Approach to Evaluation' (Chen & Rossi, 1980). Furthermore, past research also draws attention to the option of self-employment as an alternative route out of unemployment and reports similar links between self-efficacy and entrepreneurial identity. Entrepreneurial identity is related to attitude to enterprise assessed on six dimensions of latent enterprise potential: creativity, self-perception of leadership ability, intuition in problem solving, achievement orientation in project work, perceived personal control over career and positive attitudes to financial risk taking (Athayde, 2009). Research also highlights the importance of work placements in developing an entrepreneurial identity (Nabi *et* al., 2010). Based upon the research reviewed above, we propose that any evaluation of *outcome* of a programme designed to enhance unemployed graduates' employability, through post-

graduate study combined with a work placement, can be based on a measure of general self-efficacy coupled with a measure of attitude to enterprise.

The Current Research & Hypotheses

The current research sought to evaluate a training programme designed to enhance unemployed graduate employability within a quasi-experimental intervention study employing questionnaires designed to measure general self-efficacy (GSE) and attitude to enterprise (ATE). Questionnaires were administered at two points in time, before (Time 1) and after (Time 2) the intervention training programme. The research tested the following hypotheses, which are based in the research reviewed above:

Hypothesis 1: Participants will display an increase in their levels of GSE and ATE from Time 1 to Time 2.

Hypothesis 2: Participants with lower initial levels of GSE and ATE will display greater plasticity.

Hypothesis 3: The length of unemployment prior to commencing the intervention will be negatively related to GSE and ATE levels at Time 1.

Hypothesis 4: Participant levels of GSE and ATE at Time 2 will be positively related to employment success following the intervention.

Method

Design

The research utilised a quasi-experimental, longitudinal approach employing an intervention methodology to examine the relationship between the psychological effects of joblessness on unemployed graduates and the impact of their involvement in a work-integration programme. The work-intervention programme was designed to improve their employability and included the completion of a module on an MBA course alongside a four week work placement. Participants completed a questionnaire at the beginning of their programme induction day (Time 1) and again following the completion of their work-placement (Time 2).

Sample

There were 213 unemployed graduates aged 20-46 years ($\bar{x}$ = 24.68, SD = 4.40) involved in the intervention programme at Time 1. The sample consisted of 127 males and 86 females (m = 59.62%, f = 40.38%) and of these 148 held a university Bachelor degree as their highest qualification and 64 held a Masters degree (d = 69.48%, m = 30.05%). One participant did not specify highest degree qualification. Of the 213 participants 50 (23.47%) had spent less than 1 month unemployed, 77 (36.62%) had spent 1-6 months unemployed, 41 (19.25%) had spent 6-12 months unemployed and 44 (20.66%) had been unemployed for over 1 year. One participant did not state the length of time they had been unemployed.

Of the above sample of 213 participants, 110 individuals completed the questionnaire at Time 2, giving the research a retention rate of 51.17%. Of these 110 participants, seven outliers were identified and removed from the dataset and two Time 2 questionnaires were incomplete. This left a total of 101 participants at Time 1 and Time 2. The age range for these 101 participants was 20-45 years ($\bar{x}$ = 24.16, SD = 3.75), with 76 holding Bachelor degrees and 25 having a Masters degree (d = 75.25%, m = 24.75%). The sample consisted of 55 males and 46 females (m = 54.46%, f = 45.54%). No significant demographic differences were found between the sample at Time 1 and Time 2 respondents, suggesting that bias in the two samples would not skew the results. Additionally, no statistically significant differences were found between the initial GSE and ATE scores of the participants who completed questionnaires at Time 1 only and the participants who completed questionnaires at both Time 1 and Time 2.

Measures

All 213 participants completed a questionnaire at Time 1 and 110 participants completed a questionnaire at Time 2. The questionnaires employed at Time 1 and Time 2 were identical (except for biographical details which were elicited at Time 1 only) and were designed to measure GSE and ATE. The questionnaires utilised Likert response scales in which the participants rated their ability at certain tasks. The individual scales employed are outlined below and both scales were combined into one questionnaire.

General self-efficacy was measured using Schwarzer & Jerusalem's (1995) GSE scale. Prior research has shown this to be a reliable measure of GSE with reported Cronbach's α of between

.75 and .91 (Scherbaum, 2006). Additionally, the scale has been used in research involving thousands of participants across 23 different countries (Schwarzer, 2011). Participants are asked to read 10 statements relating to their ability to deal with general tasks and then rate how well each statement applies to them on a four-point scale ranging from 1 (Not at all true) through to 4 (Exactly true). Sample questions are 'I can always manage to solve difficult problems if I try hard enough' and 'I am confident that I could deal efficiently with unexpected events'.

Attitude to enterprise was measured using the ATE scale (Athayde, 2009). This scale measures attitude to enterprise for six different constructs; creativity, self-perception of leadership ability, intuition in problem solving, achievement orientation in project work, perceived personal control over career and positive attitudes to financial risk taking. Prior research has shown the ATE scale to be a reliable measure with a reported Cronbach's α of .83 across all six constructs (Athayde, 2009). Participants are asked to read 36 statements relating to specific attitudes and then rate how much they agree with each statement on a seven-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). Of the 36 statements 8 are reverse scored. Example statements are 'I believe that a good imagination helps you to do well at projects' and 'My friends would say I am a follower rather than a leader'.

Intervention

The intervention consisted of participation in an MBA module entitled the 'Effective Manager', which was delivered by a UK university. The core aims of the module were to improve key personality traits for the workplace, including effective communication, time management,

planning skills and persuasion. As part of the module individuals produced their own Personal Development Portfolio (PDP) that they completed as they progressed. All participants attended an intensive induction day (Time 1) at the university during which all module material and teaching was delivered. The module was completed alongside a four-week work placement with an external company that allowed the participant to build their confidence in the work-place and to put the skills learned on the module into practice. The module material and assignments were then completed at home by the participants during and after completion of the work-placement. Final completion of the intervention programme occurred following the submission of a 2,500 word assignment that allowed the participant to reflect upon their experience (Time 2).

Procedure

Upon arrival at the intensive induction day (Time 1) the participants were seated in a university lecture theatre where they completed the questionnaire. Researchers withdrew from the induction process after having collected the completed questionnaires in order to minimise any disruption to the staff delivering the module and to negate any potential researcher effect. Upon completion of the module and work-placement (Time 2) the participants were sent a web-link by email to an online version of the questionnaire, so that their Time 2 data could be collected.

Analysis

All questionnaire data was inputted into SPSS version 17.0 and all analyses were conducted using this software. The data was checked for normality utilising histograms and P-P plots and

found to be normally distributed. The relationships between demographic data (age, gender, time spent unemployed etc.) and GSE/ATE were explored using descriptive statistics and one-way ANOVAs. Changes in participant self-efficacy between Time 1 and Time 2 were analysed using paired-sample t-tests.

Results

Instrument Reliability

Cronbach's α for the two scales used in the research (GSE & ATE) were run both at Time 1 and Time 2. Table 1 below outlines the results for these tests.

[Insert Table 1 here]

The GSE scale achieved a Cronbach's α of just below the recommended level of .80 at Time 1 and Time 2 (Henson, 2001). This does not present the research with any reliability concerns as the GSE scale has been used extensively in prior research (Schwarzer, 2011) and whilst it has not achieved over the recommended value of .80, it is above the minimum value of .70 required for research utilising psychological constructs (Kline, 1999). For the ATE scale, the Cronbach's α-scores were above .80 showing that the scale performed reliably at both Time 1 and Time 2. The results obtained were also nearly identical to the Cronbach's α of .83 reported by Athayde (2009). Additionally, Cronbach's α were run on all items within both scales, and no individual items were found to have effected the overall reliability score disproportionately.

Hypothesis 1: Participants will display an increase in their levels of GSE and ATE from Time 1 to Time 2.

Paired-sample t-tests were employed to explore the differences between the GSE scores at Time 1 and Time 2 and the ATE scores at Time 1 and Time 2. Results of the paired sample t-tests revealed statistically significant differences between T1 and T2 for GSE only (see Table 2).

[Insert Table 2 here]

Results revealed a small but statistically significant increase in GSE between Time 1 and Time 2 ($p < .01$); but whilst there was a small increase in ATE between Time 1 and Time 2 this was non-significant ($p < .10$). *Hypothesis one partially confirmed*. However, the ATE scale consists of six different constructs that combine to form 'attitude to enterprise'. Separate, paired sample t-tests were performed for each of these six constructs (see Table 3).

[Insert Table 3 here]

Results revealed increases across all constructs with the exception of 'Problem Solving'. However, the only construct to reach a statistically significance difference from T1 to T2 was 'positive attitudes to financial risk-taking' ($p < .05$), although 'Achievement Orientation' was close to significance ($p < .10$).

Hypothesis 2: Participants with lower initial levels of GSE and ATE will display greater plasticity.

In order to test for plasticity, initial GSE and ATE scores were dichotomised into two groups on the basis of a median split. The lower complement consisted of participants who scored lower than the median value for the sample at Time 1 for each construct, and the upper complement consisted of participants who were equal to or above the median. A paired-sample t-test was performed on each complement independently, to examine the effect of plasticity on the intervention's impact. The median value for GSE was 80.00% and for ATE 79.37%. The data set was then divided into upper and lower complements according to the median split for both scales. The GSE upper complement (n=64) and lower complement (n=37); the ATE upper complement (n=43) and lower complement (n=58). Paired-sample t-tests were then conducted on all four complements. The results for the lower and upper complements of the dataset are presented in Tables 4 and 5.

[Insert Tables 4 and 5 here]

Results revealed statistically significant increases in GSE levels between T1 and T2 for participants from the lower complement ($p < .001$). Results also revealed statistically significant increases in ATE scores between T1 and T2 for participants from the lower complement ($p < .01$). *Hypothesis two confirmed*. Results for the upper complements of participants revealed non-significant decreases in GSE and ATE levels from Time 1 to Time 2.

Hypothesis 3: The length of unemployment prior to commencing the intervention will be negatively related to GSE and ATE levels at Time 1.

Demographic data was captured from the entire sample at Time 1. The demographics collected included age, gender, period of time spent unemployed and highest educational qualification. No significant relationship was found between age and gender and GSE or ATE at Time 1, or for changes between Time 1 and Time 2. There was however an interesting relationship between the periods of time spent unemployed and GSE and ATE at Time 1 only.

The relationship between GSE and ATE and length of unemployment proved inconclusive. Those participants who had spent longer periods unemployed had lower mean GSE scores at Time 1, although these differences were not statistically significant. *Hypothesis three not confirmed*. The GSE score increased at the 6-12 months unemployed period, before declining again at the 12 + month period. Nevertheless, at Time 1 mean GSE and ATE scores were at their lowest for participants that had been unemployed for over a year. Table 6 illustrate these results.

[Insert Table 6 here]

In order to further explore differences in the demographic data, an analysis of the relationship between past educational achievements on GSE and ATE levels at Time 1 was also conducted. Results of this analysis revealed that participants who held a Masters degree scored significantly higher in both GSE ($p < .01$) and ATE ($p < .001$) than those with a Bachelor degree at Time 1. Table 7 outlines these results. These differences between participant levels of GSE and ATE at Time 1 related to their prior qualification, revealed that participants with a Bachelor degree as

their highest qualification displayed greater improvements in GSE (+ 2.38%) and ATE (+ 1.22%) than those participants who had a Masters degree (GSE + 0.29% & ATE – 0.15%). However, these differences in changes between both groups over the intervention were not statistically significant.

[Insert Table 7 here]

Hypothesis 4: Participant levels of GSE and ATE at Time 2 will be positively related to employment success following the intervention.

Output data on participant employment status was collected by the programme providers post-intervention. Of the 101 participants who completed questionnaire data at both Time 1 and Time 2, only 94 provided post-intervention employment status information. This data revealed that 50 participants had gained full-time employment, 4 had entered into post-graduate education and 40 remained unemployed. From the known *output* data (n = 94), this gave the intervention a 57.45% success rate at reintegrating unemployed graduates into employment or education. Due to the extremely small sub-sample sizes for those participants who had entered into post-graduate education, analysis was only conducted on the employed and unemployed sub-samples. Table 8 outlines these results. Analysis revealed that there was no statistically significant relationship between the participants' GSE and ATE scores at Time 2 and their employment status following the intervention. *Hypothesis four not confirmed*. Indeed, participants that remained unemployed following the intervention had a slightly higher mean GSE score than their employed counterparts. The ATE scores were marginally higher for employed individuals; however, again this difference was not significant.

[Insert Table 8 here]

Discussion

Results from the statistical analysis of the current study revealed that all the unemployed graduates, who engaged in the employability enhancement intervention programme and who also completed questionnaires at both Time 1 and Time 2, displayed statistically significant increases in their GSE scores. As argued in the literature review, prior research suggests a reciprocal relationship between enhanced self-efficacy and employability (Eden & Aviram, 1993). Based upon this assertion, the authors of the current study propose that participants' raised levels of GSE suggests that the intervention programme employed in our research study can be deemed successful in terms of *outcome* benefits for this group of unemployed students. However, whilst prior research suggests that a high level of GSE is related to increased job searching and job procurement (Creed *et* al., 2001; Eden & Aviram, 1993; Meyers & Houssemand, 2010; Wenzel, 1993), the results of the current study do not support the findings of this prior research. Nevertheless, based on the results of the current study, we believe that the GSE scale can provide a valid, reliable and robust evaluation tool to measure *outcome* benefits of employment enhancement programmes. Furthermore, we believe the GSE scale provides a more accurate measurement of outcome benefits than ad hoc measures created by programme providers, which are often not grounded in any social scientific theory. The lack of applied social scientific knowledge in the design of and evaluation of work-integration programmes leads to potentially inaccurate evaluations, which fail to accurately measure the *outcome* benefits (Chen & Rossi, 1980).

Results did not reveal statistically significant increases in ATE from Time 1 to Time 2 for the same group of programme participants, although the upward trend remained and the results did almost reach significance. Further examination of the results for ATE revealed that all constructs that constitute the ATE scale, with the exception of 'problem solving', displayed increases from Time 1 to Time 2, but the only construct to reach a statistically significant increase was 'positive attitude to financial risk taking'. One interpretation of this result could be that increased levels of GSE may influence some participants to consider self-employment as an alternative way out of unemployment, which could then influence their positive perception of 'financial risk taking'. This could be related to increased levels of personal control that are a requisite for self-efficacy increases (Wenzel, 1993). This is a somewhat speculative interpretation and would require further research to confirm or refute the proposition.

Results of the analysis based on the median split, which dichotomised the cohort into an upper and a lower complement based on their increased GSE and ATE scores at Time 2, revealed that the lower complement displayed statistically significant increases in GSE and ATE after the intervention programme, whilst the higher complements' increases failed to reach statistical significance. The high significance of the ATE result ($p < .001$) for the lower complement suggests that the non-significant result for ATE across the entire cohort could be related to behavioural plasticity. However, whilst highly significant, the increase in ATE for the lower complement was still relatively small (+ 1.90%). This result demonstrates that the lower complement benefited more from the intervention programme than the higher complement, based upon their having greater behavioural plasticity (Eden & Aviram, 1993). This finding

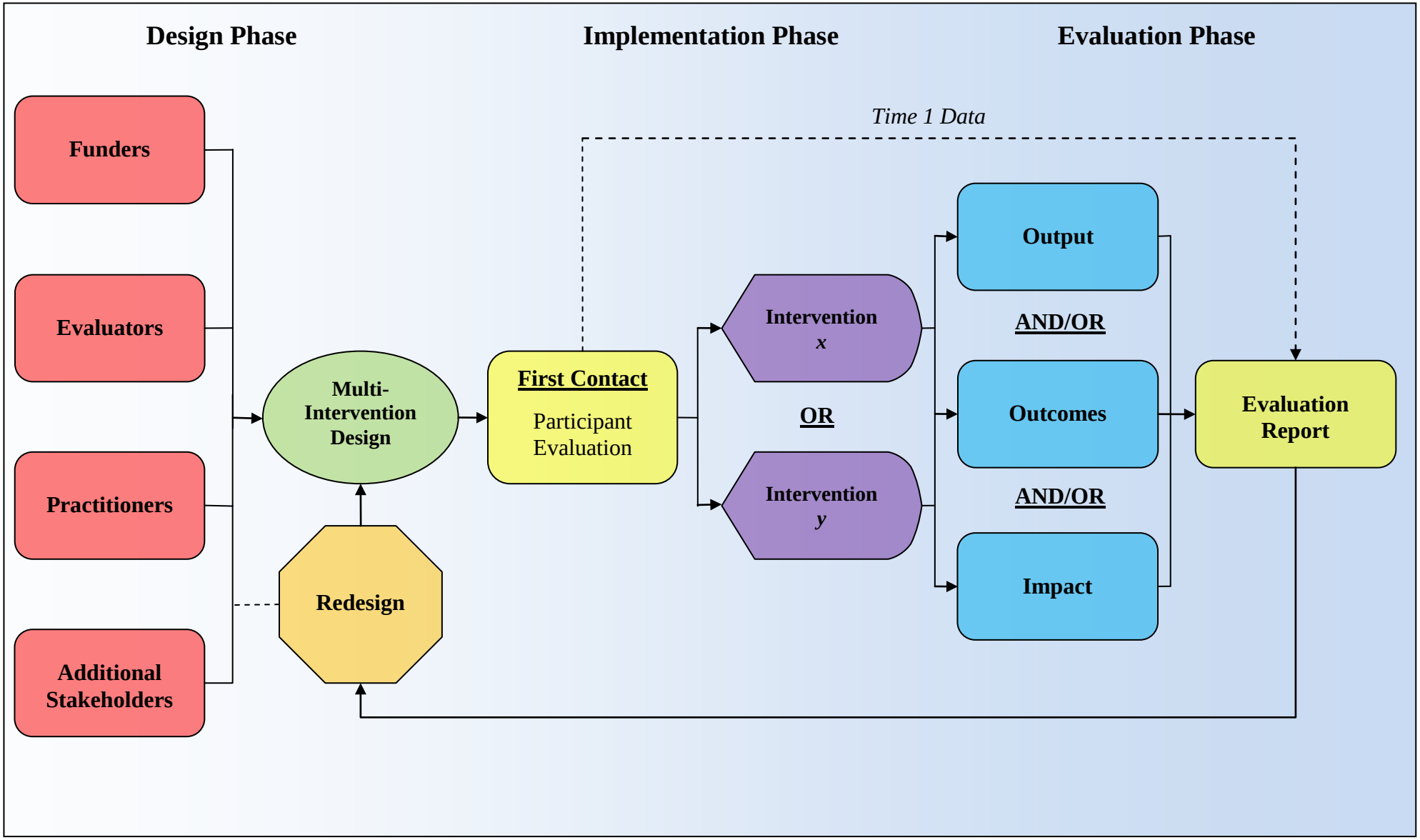
provides support for prior research that reported similar findings (Brockner, 1988; Eden & Aviram, 1993; Creed *et* al., 2001). Based on the current study's finding for behavioural plasticity, it could be argued that future applicants for work integration programmes should be tested prior to engaging in these programmes. This screening process would facilitate the selection of programme participants who have low prior levels of GSE, which would ensure the maximum *outcome* benefits resulting from work integration programmes. However, Creed *et* al. (2001) proposed the exercise of caution before applying the use of the GSE scale as a programme screening tool and the authors of the current study recommend continued caution until a considerable body of research can confirm the findings reported here.

Results for the whole cohort at Time 1 revealed that overall, there was a relationship between longer periods of time unemployed and lower levels of both GSE and ATE. This finding supported the findings of prior research conducted by Meyers & Houssemand (2010) who reported that self-efficacy levels decreased the longer a person remained unemployed. This tends to suggest that, given the results for plasticity in the current study, the benefits of employment enhancement programmes may be better suited to the longer-term unemployed. We would again recommend caution in applying this finding in practice not least because there was an anomaly in the current study's results in relation to an unexpected rise in levels of GSE for the period 6-12 months. The authors offer no explanation for this anomaly as it is counter intuitive and more research would be required to investigate this further.

Results from the analysis that explored the relationship between past educational achievement and GSE and ATE scores revealed that participants with Masters Degrees benefited less from the

intervention programme than those who had Bachelor Degrees. It seems reasonable to conjecture that participants entering the programme with a Masters Degree are likely to feel more efficacious than those with Bachelor Degrees and as a result, would display less behavioural plasticity. This lends further support to prior research that reported the effects of plasticity (Brockner, 1988; Eden & Aviram, 1993; Creed *et* al., 2001). However, we propose it would be unethical to deny unemployed graduate and post-graduate students access to enhanced employability programmes based on the results of a GSE & ATE screening test, even though this screening process might be one way of targeting those students who could potentially benefit more from the programme. We propose a more beneficial use of such a screening process would be to facilitate the directing of students to the most appropriate programme for their specific requirements. For example, if two courses were designed, one that took into account the need for some students to raise their levels of GSE and ATE and another that recognises the students require an alternative course content, prior screening for GSE and ATE could help to direct the students to the more appropriate course. Furthermore, if programme evaluation tools are developed that can inform future programme content in a cyclical development based upon the 'Multi-Goal, Theory Drive Approach to Evaluation' (Chen & Rossi, 1980) then this could benefit all stakeholders in the process. We offer the following model that illustrates our proposal (see Figure 1 overleaf).

Figure 1 – 'Multi-Theory' Intervention Programme Design & Evaluation:



In our proposed model all funders, evaluators, practitioners and any other stakeholders involved, collaborate at the programme 'Design Phase' in order to create a multi-intervention programme. At the 'Implementation Phase', during first contact, the participant's needs are evaluated and based on this evaluation process are allocated to the intervention most appropriate to their individual needs. During the 'Evaluation Phase', evaluation procedures that target the specific areas of *output, outcome* and *impact* would be employed to provide a comprehensive evaluation process that can then inform the ongoing programme redesign phase.

Finally, the *output* data for the intervention showed broadly positive results, particularly when considering that the intervention took place during a recession with high levels of competition for very few job vacancies. Out of the 101 participants, 50 gained employment and 4 went into post-graduate education, whilst only 40 remained unemployed and 7 are unknown. The relationship between GSE and ATE scores at Time 2 and employment *output* following the intervention revealed no significant relationship and surprisingly revealed slightly reduced levels of GSE amongst participants who had subsequently gained employment. Interpretation of this result is problematic but may offer support to the research conducted by Eden and Aviram (1993), which suggested that GSE was linked to job-search intensity rather than directly to employment *output*. However, this current research design did not capture job-search patterns before and after the intervention and so this interpretation could not be directly tested. Additionally, such results may be attributed to the current economic climate. GSE has been linked to success in job-procurement but the authors of the current study do not suggest that improved GSE is a guarantee of employment. Indeed, other factors such as the current economic climate, past experience and educational qualifications will have significant bearings upon an

individual's success in the job market. GSE and ATE merely augment an individual's employment chances and indeed, Meyers & Houssemand (2010) reported that GSE was most advantageous to those job applicants at the interview stage. In the current economic climate, getting to the interview stage is more difficult than ever due to the increased competition for jobs and therefore increased GSE may not have an opportunity to assist employment integration opportunity. However, such assertions are only conjecture and further research is required to test such hypotheses.

Future research

In order to further explore the participant experience of the enhanced employability programme that formed the intervention in the current research study, interviews will be conducted with a purposive sample of the programme participants. The purposive sample will be based on a selection of participants that represent the upper and lower complements based on the median split calculated during the analysis process. Qualitative analysis, based in Grounded Theory procedures, will be employed to analyse the interviews and results of this analysis will inform the development of future evaluation procedures that can contribute to the Evaluation Phase of our proposed model. It is hoped that triangulation of results from the analysis of the quantitative and qualitative data from the current study will provide the opportunity for a more detailed interpretation of the participant experience.

Conclusions

Given the current state of graduate unemployment, it seems likely that employment enhancement programmes, targeted at unemployed graduates, will continue to be required at least for the short-term future. A diverse range of programme providers will receive public funding to fulfil this requirement. These programme providers have a responsibility to provide robust, valid and reliable evidence of the *output*, *outcome* and *impact* benefits of their programmes. We believe that the current research provides empirical evidence that the GSE scale, and to a lesser extent the ATE scale, provide programme deliverers with robust evaluation tools that effectively measure the *outcome* benefits of their programmes. Furthermore, we call for future collaboration between funders, evaluators, practitioners and additional stakeholders in order to facilitate the cyclical development of intervention programme design and evaluation illustrated in our proposed model.

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