



BIROn - Birkbeck Institutional Research Online

Englert, P. and Doczi, M. and Jackson, Duncan (2014) Needs-based assessment: a model for profiling, assisting, and empowering job seekers. *Journal of Employment Counseling* 51 (1), pp. 31-43. ISSN 2161-1920.

Downloaded from: <https://eprints.bbk.ac.uk/id/eprint/14090/>

Usage Guidelines:

Please refer to usage guidelines at <https://eprints.bbk.ac.uk/policies.html>
contact lib-eprints@bbk.ac.uk.

or alternatively

Needs-based Assessment: A Model for Profiling, Assisting, and Empowering Job Seekers

Author Note

Paul Englert, [address]; Marianne Doczy, [address]; Duncan J. R. Jackson, a&dc, Surrey,
UK.

Correspondence concerning this article should be addressed to Paul Englert, [address for
correspondence].

Email: [insert desired email]

Abstract

Assisting unemployed job seekers into employment is a key function of progressive Governments within the OECD. However, with increasing numbers of unemployed people and decreasing budgets, OECD Governments are continually forced to make decisions on who should be eligible for government-assisted interventions and often restrict active labour market assistance to long term unemployed job seekers. The following study overviews the development and pilot of an assessment process based around the individualised needs of job seekers conducted during the last recession in the late 1990s. Needs-based Assessment (NBA) was developed in New Zealand to assess job seekers' capacity, willingness, and opportunity to find work. In doing so, the process incorporated client psychological factors without requiring employment advisors to have formal counselling qualifications. The following paper outlines the development of NBA from its theoretical underpinnings, evidence from a longitudinal study and the development of an employment advisor administered computerised profiling tool, and the provision of self-assessment and support tools. The paper argues that with a rise in the number of unemployed job seekers, an increase in the percentage of those who become long term unemployed, increasing demand for government resources with less resources available to satisfy those demands, and the widespread adoption of social and interactive media, that is timely to revisit an NBA approach to job seeker profiling and targeted intervention.

Policy and Organisational Imperatives for Profiling the Unemployed for Targeted Early Intervention

Governments within the Organisation for Economic Co-operation and Development (OECD) want to reduce the number of people who become long-term unemployed for a multitude of reasons. Long-term unemployment has a corrosive effect on an individual (Feather, 1990; Fryer & Payne, 1984; Jahoda, 1982; Sath, 2012; Schmitt & Jones, 2012; Winefield, 1995), their family (Brand & Pullen, 1981), and communities (Carle, 1987). It creates a form of intergenerational debt within families (Winefield, Tiggemann, Winefield, & Goldney, 1993). The financial and psychological trauma often associated with long-term unemployment can mean that children of long-term unemployed parent/s are less well placed to feel positive about their opportunities as adults (LaFrance & Cicchetti, 1979), have more stressful childhoods with attendant adult health issues (O'Brien & Kabanoff, 1979; Payne, Warr, & Hartley, 1984), and have less money available to be spent on their education and development (Thornberry & Christeson, 1984). Therefore, long-term unemployment impacts not only on the current productivity of a nation but on its future productivity (Coleman, 1994; Hornstein, Lubik, & Romero, 2011).

While OECD Governments want to provide support through active labour market policies, it is unnecessarily expensive to assist all unemployed people back into paid work through programmes such as subsidised employment, community work schemes, and intense case management (Pavoni, 2007). Funds spent on these programmes mean less taxation income is available for other expenditure. Hence, public employment services want to avoid helping job seekers who could help themselves find work reasonably quickly and save the state's limited resources for people who would find it difficult to regain work without extensive assistance, and

for those who are long-term unemployed (Amundson & Borgen, 1982). This applies whether the state is the direct provider or contracts external organisations to provide services (Organisation for Economic Co-operation and Development (OECD), 1997; OECD, 1997a). Traditionally OECD Governments set assistance within a timeframe, usually withholding access to active labour market assistance until a job seeker has been unemployed for 26 weeks to 52 weeks (IEA, 1997; OECD, 1997). This approach is intended to reduce spending on ‘false negatives’ (those who would have found work without intervention, see Occupational Psychologists and Research Associates Ltd (OPRA), 1997). The logic here is tautological in that governments within the OECD will only spend on those who are perceived to be at risk of long-term unemployment when they are indeed long-term unemployed. This logic assumes, however, that interventions are equally successful at any point in the unemployment cycle, and do not lose efficacy over time (Fryer, 1985). This is not the case as behaviours such as reduced job-seeking activity (Šverko, Galić, Seršić, & Galešić, 2008; Wanberg, Watt, & Rumsey, 1996; White & Smith, 1994) and attitudes such as learned helplessness (Fineman, 1983) and loss of confidence (Feather, 1990) become entrenched over time. This results in some interventions being less effective if not applied early in a job seeker’s unemployment (Fryer, 1985). Employment advisors (EAs) are obliged to operate according to government policy and organisational goals and procedures. At the same time, EAs are aware of the job seeker dynamic of a negative correlation between intervention effectiveness and duration of unemployment, as well as the local labour market conditions. As a result, EAs are often frustrated at not being able to provide assistance to job seekers who are newly-unemployed but who the EAs assess as likely to become long-term unemployed without assistance (IEA, 1997).

Unfortunately, it is hard to embody the tacit knowledge of EAs into policy frameworks that would allow an employment advisor to provide assistance based on their analysis of the situation while also maintaining financial probity around use of limited state funding (Athanasou & Pithers, 1995). The challenge has long been how to make early resource allocation feasible and cost-effective: the 'holy grail' of government officials directly and indirectly involved in labour market policy and service delivery. The ideal is to be able to identify upon initial registration those who are likely to become long-term unemployed, through the combination of an analytical rule-based assessment tool and employment advisor judgement (OECD, 1997).

The New Zealand Response to the Requirement for Profiling: Needs-based Assessment (NBA)

In response to the need to more accurately profile job seekers and to make the most effective use of government funding, the New Zealand Employment Service (NZES), a service agency in the Department of Labour (in October 1999 the NZES merged with Income Support to become Work and Income New Zealand (WINZ), a service of the Ministry of Social Development) undertook a three-part profiling project (IEA, 1997; OPRA, 1997; OPRA, 1998). This project involved, the development of a rule-engine for employment advisors to assess and categorise job seekers, a pilot that tested this tool, and a longitudinal study to assess the predictive accuracy of the model. The pilot evolved to incorporate a computerised job seeker self-assessment.

The aim was to assess newly-unemployed job seekers according to their willingness and capacity to find work and the availability of work opportunities so as to enable assistance to be given early to those most in need. In addition, those job seekers considered more capable of managing their own job search would be reminded of their ability to do so and the expectation

that the agency had that they would use the support available in a pro-active way. This tool was called Needs-based Assessment (NBA, see OPRA, 1997). NBA was premised on a 'glass half-full' approach, looking at a job seeker's capability to find themselves a job rather than their risk of not being able to find work.

While the project was piloted over 10 years ago and only partially integrated from NZES to WINZ, it has major relevance today for a myriad of reasons. The majority of the working age population is now proficient in computer skills and uses the Internet for personal and commercial activities. Many locations have access to broadband services. More people are increasingly comfortable with online self-disclosure and the use of internet-based self-management tools (Mackenzie, Kurth, Spielberg, Severynen, Malotte, St Lawrence, & Fortenberry, 2007; Skeels, Kruth, Clausen, Severynen, & Garcia-Smith, 2006).

The global financial crisis has not only caused a sudden and large rise in unemployed people seeking assistance and an increase in the number of long-term unemployed, it has meant governments have greater calls on the deployment of a reduced funding base (Couch, 2012). The Needs-based Assistance Assessment tool provides an efficient and effective way for government agencies to manage an increasing client base from a constrained budget. Indeed, the resurgence of interest in NBA in New Zealand is likely to be a direct result of the changing economic climate.

Changing Government Strategy and Labour Market Conditions: The Context for the Development of NBA

In 1994, the Prime Ministerial Taskforce on Employment made recommendations to the Government that resulted in a substantial change in the nature of employment services and a stronger focus on the long-term unemployed. The new service elements were developed under

an approach termed 'individualised employment assistance' (IEA). This new approach resulted in the development of a fundamentally re-designed information system, a substantial increase in front-line staffing levels, and the move towards a more sophisticated and results-based performance measurement approach.

By 1997, job seekers with more than 26 weeks duration were provided with 'Job Action Plans' (JAP). This was in recognition that despite improving economic conditions resulting in an increasing number of job opportunities and reducing the duration of newly-registered job seekers, people who had been unemployed for a long time were not as successful in obtaining employment as those recently unemployed.

The individualised approach to employment assistance took the form of case management, where barriers to employment faced by an individual would be identified along with suitable available opportunities. The JAP would be developed with specific time-based goals and forms of assistance that had been identified as useful in helping the job seeker find work or become more employable. The plan would take into account not only the individual's circumstances but also the nature of the local or regional employment and training markets.

The new information system was designed around developing more personalised relationships with newly-enrolling job seekers. Employment advisors were trained in a new approach to obtain information from job seekers, provide information to them, and manage a job seeker in their employment search activities. While the focus was on an individualised approach, the assessment emphasis remained on tangible indicators of employment readiness, such as educational attainment, job history, location, transport options, etc. In short, it was based on demographic rather than psychographic information despite being touted as 'individualised' assistance (Working Knowledge, 1997).

Attempting to Identify the Risk of Long-Term Unemployment

In order to improve results from the individualised employment assistance, NZES attempted to identify features or factors that would effectively predict a newly-unemployed job seeker's likelihood of becoming long-term unemployed. This was with the aim of ultimately reducing the pool of long-term unemployed through early intervention and assistance.

Individualised assistance and active labour market programmes, such as case management and temporarily subsidised work, are expensive (Economist, 1997). Moreover, concerns about a high rate of displacement (non-targeted groups gaining employment at the expense of other groups) meant that Treasury officials and Labour Market Policy Group analysts in the Department of Labour (of which NZES was a service) had always been resistant to agreeing to the provision of early intervention (Gardiner, 1994). Notwithstanding, the NZES decided to attempt to develop a risk assessment tool as part of IEA.

Both research at the time and more recent research indicate that there has not been significant success in identifying factors over and above ethnicity, age, and location for determining the likelihood of a newly-unemployed job seeker becoming long-term unemployed (Dakin & Armstrong, 1989; Fay, 1996; Meyers & Houssemand, 2010; OECD, 1998; Tiggemann & Winefied, 1989). At the time of the development of NBA, five OECD countries had investigated profiling (OECD, 1997b; OECD, 1997c) and the general consensus was that profiling was unlikely to be better than chance at predicting long-term unemployment. However, it should be noted at this time that many countries were limited in their capacity to predict by the non-use of certain demographic variables as well as any extensive use of psychological variables. As a result of the exclusion of key predictors, the reports by the OECD (OECD, 1997b; OECD, 1997c) note that if the

predictive power of the model is to be maximised, certain variables that are priori predictive may need to be included despite civil rights concerns, that any profiling need to be identified early and offered accordingly and that the Services recommended as a result of profiling need to be helpful for clients in achieving the goal of finding employment to prevent “the drift of job seekers into long-term unemployment and social exclusion” (OECD, 1997, p. 2).

The New Zealand Response to Modelling of Job Seeker Risk: A Needs-based Assistance Approach

Given the evidence at the time, NZES decided that successful implementation of a model based solely on risk was not viable. This was due to the experience obtained from attempts in other OECD countries and the expense involved. The more cost effective approach was taken which was to support the development of a needs-based approach.

The difference between a need-based versus a risk-based model is that a needs-based approach incorporates a comprehensive approach to assessment assessing not only risk, but also structures the assessment process, and provides a framework for client feedback and client management. Risk assessment provides information on the risk of long-term unemployment but it provides little in the way of identifying what may be preventing a person from finding work and corresponding interventions. This can only be achieved by a thorough assessment of a client on a variety of factors related to employment status. Moreover, knowing the nature of a person’s needs is a prerequisite to define what type of assistance to provide (Eden & Aviram, 1993).

The theoretical foundation of NBA developed in New Zealand was derived from the model of individual performance developed by Blumberg and Pringle (1982). This model of

individual performance has been applied to many aspects of human behaviour (e.g. Kirkman, Tesluk, & Cordery, 1997).

With respect to unemployment status, the model suggests that a person's unemployment status can be attributed to three major factors:

- Capacity: How capable is a person to work? This construct captured a person's, skills, qualifications, and experience as well as less tangible capacities such as confidence around finding work and successful task completion.
- Willingness: How willing is a person to work? For example, how selective are they in their job search, what is their reservation wage (the amount of money they will accept for work), what is their general attitude toward work?
- Opportunity: What is the labour market like for a person, in a particular geographical region for particular roles? This construct captures the demand side of the unemployment status equation.

The final model for NBA extended on the literature review of previous attempts at predicting long-term unemployment, supplemented this with psychological literature, added to this staff consultation, and finally tested the model using regression analysis (OPRA, 1999). Staff consultation was very important as it enabled deep organisational learning to be captured, and a framework to be designed that took into account organisational dynamics and the relationship between clients and employment advisors. It enabled the tacit knowledge of the employment advisor to be incorporated and sought synergy from the dynamic between computers and people, rather than assuming that one was pre-eminent.

The approach used to develop the NBA profile included research, staff consultation, and a theoretical model of performance resulting in an integrative framework for assessment. The assessment had to be predictive as well as informative, identifying areas that a case manager could work on with their client as part of a needs-based approach. Case managers, in turn, had to be given guidance as to the risk classification of an individual so that an effective intervention could occur.

Items for all predictive and intervention areas were classified as either capacity issues, willingness issues, or opportunity issues. Capacity issues excluded hard skill areas such as skills and qualifications as well as psychological variables that impact job-seeking behaviours such as confidence and learned helplessness. Willingness issues included individual reservation wage (the amount a person would be prepared to work for), motivation, and willingness to move. Opportunity issues were based mainly on the labour market. The separation of items in this way allowed for a differentiation between areas that were affecting a person's capacity to find work from areas related to a willingness to work. The result of this separation led to targeted intervention while providing guidance to government on the type of programmes that job seekers were most in need of. Items were developed for each indicator so that the diagnostic would lead to a full assessment of a person's needs. This was then matched with an intervention database and feedback framework that resulted in an individualised employment plan.

Using Risk-Identification as the Basis of Positive Intervention for Job Seekers

The NBA model involved a job seeker being interviewed by an EA about their qualifications and work experience plus psychological information. The EA entered this information into a computer, which used a rule engine to calibrate an assessment. The calibration was initially based on expert judgement but later the weightings of the variables used

to determine risk were validated through an extensive longitudinal study. Risk rating categorised an individual into various categories such ‘easily employable and not requiring assistance’, ‘easily employable but low willingness to work’, through to ‘likely to remain unemployed without intervention’. Six categories of NBA assessment were provided in all. Where an assessment showed a job seeker was able to manage their own job search, they were given positive reinforcement and told about a range of self-service resources. If the job seeker was willing to be pro-active but needed some low level (low cost) assistance, for example, joining a job club, this was facilitated. If the assessment showed that the job seeker was at risk of becoming long-term unemployed, then the EA could provide immediate positive interventions to mitigate this risk, leveraging off the positive factors identified. This assistance ranged from job clubs, CV preparation, priority for NZES gathered vacancies, and job placement subsidies. In the pilot both the job seekers and the employment advisors were comfortable with the questions spanning psychological factors, and canvassing ability and willingness. The latter information provided the employment advisor with the means to ask probing questions in a way that only receiving demographic information did not.

The EAs knew resources for early intervention were constrained so they had to maximise the likelihood that any intervention they selected would be effective. The insights an EA received about a job seeker through the NBA was more extensive than previous questioning models, which focused on demographics and tangible factors. The EA was then able to integrate that with their tacit knowledge gained from having interviewed many job seekers and their knowledge of the local labour market. In the pilot, EAs were, therefore, given permission to override the model's assessment if they viewed it as inaccurate in its categorisation of a job

seeker's risk of becoming long-term unemployed. EA overrides accounted for less than 5% of all assessments (NBA, 1997).

Elements of the NBA model were integrated into the new IEA service delivery model as the findings demonstrated the value of incorporating psychographic information on job seekers. Categorising them according to their ability and willingness to actively seek work enabled the NZES to provide some early provision of active labour market assistance to newly-unemployed job seekers while operating within capped budgets.

Optimising Organisational Time and Resources Through Targeted Feedback

It is most efficient for an organisation, and for clients, to only have to enter information into a database once. Accordingly, it was decided that much of the information provided in the NBA could be used for other assistance, such as creating a CV for clients who did not have one. This also reduced the apprehension many job seekers without a CV felt at the prospect of having to provide one. When a CV had to be created, the job seeker information was automatically put into a professionally designed template. The job seeker could then revise it and provide additional information.

The questions that comprised NBA covered psychological, job search, and work experience information, and as such could also provide the basis for a semi-personalised feedback sheet based on Andreasen's model of social marketing (Englert, Sommerville, & Guenole, 2009). The value of such a sheet lay in providing positive reinforcement from 'day one' about the attributes and experience that the job seeker had that would assist them in finding a job while also pointing out, in a constructive way, what had to be strengthened. This information would also be independent of the EA's assessment.

From the factual and attitudinal information provided by the job seeker, a rule engine allocated prewritten paragraphs in a format that resembled counselling feedback. Clients in the research project were very positive about the value of receiving this feedback and found the suggestions and tone to be encouraging. For many, it was the first time that they had received this type of personalised feedback and they could reflect on it in their own time (Englert, Sommerville, & Guenole, 2009).

Increasing the Effectiveness of a Needs-Based Approach with the Development of a Self-Assessment Tool

The optimal use of time and resources would be to have the job seeker enter their own details into the computer and answer the risk-assessment profiling questions before having an interview with an EA; some perhaps would not even need an interview. While access to the Internet was not widespread in 1999, job seekers could be provided with computer terminals in the client service area of employment centres. Therefore, halfway through the pilot, it was decided to allow job seekers to undertake a self-assessment using the NBA tool. Research suggests respondents are likely to be more truthful about personal information when they enter it into a database themselves, rather than revealing it to an official; minimising the risk of false or misleading information being entered (Lalwani, Shrum, & Chiu, 2009; McManus & Masztal, 1999; Wilkerson, Nagao, & Martin, 2002).

The additional value to the organisation of having a job seeker enter their own data is that it established the requirement for the job seeker to be pro-active and take responsibility for their job search from their first contact with the agency. It also illustrated that job seekers could manage their job search activity. This reinforced, in a very tangible way, the policy intention behind the introduction of the Community Wage which was, in part, to maintain their motivation

and prevent loss of confidence, skills, and self-esteem. The community wage was introduced to replace the unemployment benefit.

The self-assessment tool combined with a 'personalised' feedback sheet on their capacity and willingness to find work, information on the availability of opportunities, a draft CV, immediate and constructive reinforcement about what positive attributes and experience the job seeker had, and information on what support would be needed and/or was available. This mitigated any sense of receiving a lesser service because it was 'provided' via a computer rather than via a human being. If needed, a job seeker could also utilise their self-assessment information to begin creating a training and skill development plan, which the job seeker could work on afterwards or seek an appointment to get assistance in completing.

In the pilot study, job seekers entered their information in the client services area of NZES centres. Today, given the widespread use of the Internet and the relative ease of access to it, the high cost of floor space, and the expectation that many people have of 'open all hours' services, job seekers could enter the information at a time and place that suited them. The organisational benefit of the job seeker inputting their information before having an appointment with an employment advisor is that the information can be absorbed and analysed by the employment advisor who is then able to develop an initial approach to assisting the job seeker before the first interview. This provides time and resource management efficiencies for the organisation, and, as the pilot showed, improves the effectiveness of the first interview.

Quantifying Risk Assessment via a Longitudinal Study

The success of the pilot of NBA was later followed up with a longitudinal study to identify whether accuracy of prediction could be enhanced through the model. The purpose of the study was to identify whether it was possible to predict risk of long-term unemployment

accurately enough to allow early resource allocation in the form of training or other interventions to clients most at risk of being long-term unemployed. The study also attempted to identify clients who are not at risk and thus do not require government assistance.

The study was one of the largest of its kind at the time and involved over 5,000 participants who answered a series of items for the NBA framework and were then traced over time, regressing their profile against actual employment status. The research was run over a 14 month period from early 1997-1998 and included the generation and testing of NBA items and tracing of the sample over 6 months through to the analysis and reporting of results. A stratified sample from across randomly selected regions of New Zealand was obtained for the study. The sample was a mix of ethnicities representing the population of New Zealand. Questionnaires were completed voluntarily on site at various WINZ offices across the country resulting in a response rate of over 80% (5228 completed questionnaires of the 6440 offers to job seekers to complete the questionnaire). Independent variables assessed were classified as either Capacity issues (e.g. 'do you have a CV', 'do you references', 'what things would make it difficult for you to work'), willingness issues (e.g. job searching behaviour, job selectivity, reservation wage) and opportunity issues assessed by the demand for work in a given geographical area.

A discriminant analysis was used to identify the most effective cluster of questions to use for assessing employment risk and test the resulting model.. Opportunity and ethnicity variables were the best predictors of risk of unemployment followed by EA judgement of risk and capacity variables such as 'do you a CV, number of things that make it difficult to work). Willingness variables added incremental validity to the model with the most predictive questions in the model being (how often do you think you can get to work regularly, I would like to find a job as soon as

possible and how often would you be likely to look for a job by asking friends and families over the next month).

The results of the analysis indicate that, while the model had some accuracy, a number of clients were incorrectly assessed as being at risk. In particular the model had greater levels of accuracy for the prediction of unemployment than it did in terms of prediction of self-starters and the model over-predicted the number of people who would remain unemployed). This would represent a waste of resources if allocation of money to help them was made solely on the basis of this prediction.

To address this issue, a variety of cut-off points were implemented that reduced the number of clients regarded to be at risk or eligible for early resource allocation. This would mean that fewer people would be regarded at risk in an attempt to reduce the number of inaccurate classifications. Moreover, the pragmatics of risk assessment was also considered such that the aim was to identify the most accurate assessment of job seekers using as few items as possible. A decision was made to limit the at-risk group (those eligible for early resource allocation) to 15% of the sample to reduce potential wastage. A cut score set at 15% was equivalent to the model classifying the bottom 15% of the sample as highly likely to be unemployed for an extended period of time (6 months or more). While this was a conservative estimate, based on unemployment rates at the time, this was a figure that was deemed indicative of what may be seen as acceptable to Treasury in relation arguments for early resource allocation (ie. A pool of funds for 15% of job seekers most at risk of long term unemployment).

Given the trade-offs between increased accuracy of prediction and increasing the items used for assessment, a set of six key questions were identified for the prediction of long term unemployment. Within these parameters 66.8% of those classified as at-risk of being

unemployed in six months time were classified correctly. The single most powerful non-opportunity predictor was an EA judgement with psychological variables such as self-belief of finding a job also rating high. Given that the resulting model had an error component of 30%, the recommendation from the report was that any predictive profiling should incorporate EA judgement and should not be focused solely on risk but also on need identification. Hence, the predictive power of the model, while useful to note, did not supersede the requirement for an intervention framework that match need to intervention, independent of risk rating.

Conclusions from the New Zealand Experience of Using NBA to Enhance the Development of Government Assistance for Employment Counselling

The overall response to the various pilots and iterations of NBA from both job seekers and EAs was positive. Job seekers welcomed the opportunity to have a comprehensive assessment of their employability. They liked the nature of the feedback, which reinforced the factors they had that would help them obtain work with the added bonus of being provided with advice on how to improve their employability. The EAs found the tool easy and satisfying to administer. They acknowledged the veracity of the tool in assessing the job seeker's employability and in providing an analysis that assisted them to probe further. The NZES considered the model of value and incorporated elements of it into the individualised employment assistance client services model.

With self-assessment, the EAs had more time to spend discussing employment plans with clients because the data entry had already been completed. The process of self-assessment enabled the employment advisors to allocate their time more effectively. EAs felt positive about

the way they were now able to structure feedback, having had more time to consider options for job seekers and find information on relevant jobs and training programmes.

The NBA model was not, however, formally introduced to Work and Income for resource allocation. While the predictive accuracy was comparable to other prediction of human outcomes using non-cognitive data (Barrick, Mount, & Judge, 2001) the accuracy was not deemed high enough to enable resource allocation over time based duration. Savings in time and savings in resource allocation are not, therefore, assessable. In the opinion of the writers, the reason for this is twofold. Firstly, prediction of human behaviour is poorly understood when applied to economic modelling and resource allocation. The required levels of accuracy of a predictive model to be sufficiently predictive to justify early resource allocation are simply outside the levels of statistical significance often found. For example, the correlations required for the model would need to account for over 60% of the variance related to long term unemployment which equates to around $r=0.8$. This far and away exceeds even the most reliable and valid psychometric instrumentation. Secondly, and perhaps more importantly in terms of the relevance of the study to the present day, the introduction of NBA was somewhat hindered by a change in philosophy of employment service provision at the time of the completion of the NBA work. The study was originally conducted at NZES who were mandated with the provision of employment services and helping job seekers into work. During the study NZES was merged with the much larger government department Income Support to form Work and Income or WINZ as it was known. The philosophy at this time changed to being primarily compliance focussed which may in turn be due to the inequality of the size of the two organisations merged. Over time there has

been a shift in philosophy to be more balanced between compliance and assistance and hence the timing maybe right to revisit the theory and practice of NBA.

The value of the NBA model to an employment agency is its integration of ability and willingness with information about employment demand to categorise job seekers for receipt of active labour market assistance. NBA provides a means of synthesising rule-engine modelling with employment advisor tacit knowledge. The rule engine can be set to categorise job seekers at risk of long-term unemployment in a way that enables funding supply constraints to be managed while allowing a degree of EA judgement to override the tool's decision-making. The value of a theoretically-sound self-assessment tool lies in their ability to reduce organisational costs while not diminishing the sense of 'service' that job seekers experience. Many job seekers welcomed the opportunity to be 'in charge' of the process of disclosing their information. They felt a sense of achievement in having enrolled themselves with the Employment Service and valued being able to take their time to disclose their experiences and views without outside influence. Those with serious barriers, such as literacy or language difficulties, were comfortable using friends or family for assistance. The sense of empowerment achieved by many clients who did a self-assessment is a salient feature of the value of NBA. NBA was a motivational tool because it assumed that a job seeker had positive experience and skills for finding employment which they could build on if necessary. This increased a job seeker's locus of control in the job searching process which is in contrast to a traditional deficit based model (Cvetanovski & Jex, 1994; Hesketh, 1984).

With this in mind, the success of NBA and its relevance for today's environment can be put down to five key factors:

1. The pilot's success was based on combining theories, models, and research on the psychological and social factors associated with job search, with the tacit knowledge and experience of employment advisors.
2. Time was invested in creating a coalition of EAs and policy analysts. However, it is necessary at times to sidestep those policy analysts who base their evidence only on demographic factors and have a low familiarity with the efficacy of interactive technologies. The project took an iterative, action learning approach, and was flexible about adopting new elements for the pilot.
3. The basis of the model was an acknowledgement that the job seeker could play an active role in their job search and in increasing their employability. The decision to take a 'cup half full' approach, while still looking at a job seeker's risk of becoming long-term unemployed, was in order to leverage a job seeker's existing employability and their motivation, by focusing on what their strengths were while also identifying their weaknesses.
4. The potential deterioration of psychological aspects of employability was a key factor in developing the 'employability' and 'at risk' categories. The premise was that for some types of job seekers early assistance was much more effective than assistance provided when the job seeker was long-term unemployed, while acknowledging the need to ration early access to more costly forms of assistance.
5. Effective and efficient individualised customer service is based on maximising a blend of 'people, place and technology': people being the job seeker and the EA; 'place' being just about anywhere thanks to the Internet; and 'technology' being provided by an employment service, a community location, or a job seeker. The mix will be contextual

to geography and cultures so a diversity of job seekers and employment advisors, as well as technology experts, need to be involved in determining how best to design the mix.

Despite being designed and piloted when unemployment was falling, NBA, with its potential for client self-assessment, is very relevant today for several reasons. With unemployment rising in most countries because of the global financial crisis, its efficiency in capturing and analysing data is valuable. While there is no consensus as to the likely timeframe for recovery amongst those with financial and economic expertise, experience shows that unemployment takes longer to decline once the financial system has achieved equilibrium. There is always a lag between GDP increasing and unemployment falling, which was the case in the mid-1990s when the NZ Employment Service began considering individualised employment assistance, the approach from which NBA developed. In addition, long-term job seekers are less likely to obtain work when labour market opportunities reappear (Cvetanovski & Jex, 1994).

When the pilot for NBA was run there was not today's familiarity and comfort amongst the general public with using computers for personal services; it was well before the advent of internet-based social media such as LinkedIn, Facebook, and YouTube, and online counselling tools. As more and more people become comfortable with gaining support for personal issues through computer interactions and applications and research provides insights into the most efficacious use of computer mediated services, a suite of tools such as those with NBA is timely to consider. An assessment approach incorporating the framework of NBA could provide the means for empowering job seekers to maximise their current employability by making them more alert to what they have 'going' for them, where there are gaps and identify how to reduce them. It could enable employment services to become more efficient and effective at identifying and assisting job seekers at risk of long-term unemployment and supporting job seekers to be

more pro-active in helping themselves find work. It could maximise the most effective use of the government's limited resources without compromising the quality of service. Indeed, in some ways, a more dynamic interaction between clients, advisors, and technology would enhance the quality of service to job seekers and in doing so increase the likelihood of positive outcomes.

Conclusion

"While the NBA was developed and trialled 10 years ago, it provides a valuable model for today's decision-makers to consider in regard to developing 21st century services and tools that are both cost-effective and client-centric. . The combination of research and user-volunteered information, mediated by technology, which lies at the heart of NBA, could not be more relevant to the zeitgeist: tech savvy public; budget constrained governments; rising unemployment; social media mediated realities. The development of NBA has many lessons for mandatory Government-assisted employment counselling. A theoretically-sound model of assessment is the foundation for targeted intervention and will result in a thorough assessment that focuses on external and internal precursors to employment. A standardised feedback process will enable those with limited counselling experience to provide standardised feedback that is individualised and focussed on addressing the specific barriers a job seeker has to get back to work. Evidence-based risk assessment will provide Governments with the confidence to allocate resources according to 'need' and 'risk of extended periods of employment' rather than duration. Administration of the assessment via the Internet has the potential to create further efficiencies in the employment counselling process by allowing counsellors to focus on the provision of counselling rather than data entry.

While the development of NBA occurred over 10 years ago, the lessons are as relevant today as they were back then. Only through a holistic and comprehensive approach to employment counselling that addresses the tension between financial restraints of government and the individual needs of job seekers will satisfactory outcomes for both parties be achieved. As it is unlikely in the near future that either unemployment will drop or governments will refrain from providing assistance to the unemployed a review of the development of NBA maybe timely.

References

- Amundson, N. E., & Borgen, W. A. (1982). The dynamics of unemployment: Job loss and job search. *The Personnel and Guidance Journal, May*, 562-564.
- Athanasou, J. A., & Pithers, R. T. (1995). *Jobseeker assessment: Development of classification and case management assessment processes*. (Unpublished manuscript). Department of Employment, Education, Training and Youth Affairs, Canberra, Australia.
- Barrick, M. R., Mount, M. K. & Judge, T. A. (2001). Personality and performance at the beginning of the new Millennium: What do we know and where do we go next? *International Journal of Selection and Assessment, 9*, 9-30.
- Blumberg, M., & Pringle, C. D. (1982). The missing opportunity in organizational research: Some implications for a theory of work performance. *Academy of Management Review, 7*, 560-569. doi: 10.5465/AMR.1982.4285240
- Brand, H. J., & Pullen, R. C. (1981). Work related self-concept and family relations in unemployed married men. *Psychological Reports, 68*, 1091-1096.
- Carle, J. (1987). Youth unemployment-individual and societal consequences and new research approaches. *Social Science Medicine, 25*, 147-152.

- Coleman, J. S. (1994). Social capital, human capital, and investment in youth. In A. C. Petersen, & J. T. Mortimer (Eds.), *Youth Unemployment and Society* (34-50). New York, NY: Cambridge University Press.
- Couch, K. A. (2012). The post-recession employment situation: A comparative perspective. *Journal of Policy Analysis & Management*, *31*, 153-154. doi: 10.1002/pam.20620
- Cvetanovski, J., & Jex, S. M. (1994). Locus of control of unemployed people and its relationship to psychological and physical well-being. *Work & Stress*, *8*, 60-67.
- Dakin, S., & Armstrong, J. S. (1989). Predicting job performance: A comparison of expert opinion and research findings. *International Journal of Forecasting*, *5*, 187-194.
- The muddled maths of welfare-to-work (1997, March 8). *The Economist*, 37-38.
- Eden, D., & Aviram, A. (1993). Self-efficacy training to speed reemployment: Helping people to help themselves. *Journal of Applied Psychology*, *78*, 352-360.
- Englert, P., Sommerville, S., & Guenole, N. (2009). Application of the social marketing model to unemployment counselling: A theoretical perspective *Journal of Employment Counseling*, *46*, 107-115.

Fay, R. G. (1996). *Enhancing the effectiveness of active labour market policies: evidence from programme evaluations in OECD countries*. (Unpublished manuscript). Organisation for Economic Co-operation and Development, Paris, France.

Feather, N. T. (1990). *The psychological impact of unemployment*. New York, NY: Springer-Verlag.

Fineman, S. (1983). Counselling the unemployed: Help and helplessness. *British Journal of Guidance and Counselling*, 11, 1-9.

Fryer, D. M. (1985). Stages in the psychological response to unemployment: A (dis)integrative review. *Current Psychology*, 4, 257-273.

Fryer, D., & Payne, R. (1984). Proactive behaviour in unemployment: findings and implications. *Leisure Studies*, 3, 273-295.

Gardiner, P. (1995). An analysis of exit rates and duration dependence in registered unemployment. In P. Morrison (Ed.), *Labour, Employment and Work in New Zealand 1994*. Proceedings of the Sixth Conference (67-75). Wellington, New Zealand: Victoria University of Wellington.

Individualised employment assistance detailed design. (1997). (Unpublished manuscript). New Zealand Employment Service, Wellington, New Zealand.

- Hesketh, B. (1984). Attribution theory and unemployment: Kelly's covariation model, self-esteem, and locus of control. *Journal of Vocational Behaviour, 24*, 94-109.
- Hornstein, A., Lubik, T. A., & Romero, J. (2011). Potential causes and implications of the rise in long-term unemployment. *Richmond Fed Economic Briefs, 11*, 1-5.
- Jahoda, M. (1982). *Employment and unemployment: A social-psychological analysis*. Cambridge, England: Cambridge University Press.
- Kirkman, B. L., Tesluk, P. E., & Cordery, J. L. (1997). *Toward a model of team performance for the 21st century: How the interaction of skill development, team empowerment, and self management creates high performance work teams*. Paper presented at the 2nd Australian Industrial and Organisational Psychology Conference, Melbourne, Australia, 27–29 June.
- LaFrance, M., & Cicchetti, C. (1979). Perceived responsibility and blame for economic success and failure: Social class and employment status comparisons. *Journal of Applied Social Psychology, 9*, 466-475.
- Lalwani, A. K., Shrum, L. J., & Chiu, C. Y. (2009). Motivated response styles: The role of cultural values, regulatory focus, and self-consciousness in socially desirable responding. *Journal of Personality and Social Psychology, 96*, 870-882.

Mackenzie, S. L., Kurth, A. E., Spielberg, F., Severynen, A., Malotte, C. K., St Lawrence, J., & Fortenberry, J. D. (2007). Patient and staff perspectives on the use of a computer counseling tool for HIV and sexually transmitted infection risk reduction. *Journal of Adolescent Health, 40*, 572-579.

McManus, M. A., & Masztal, J. J. (1999). The impact of biodata item attributes on validity and socially desirable responding. *Journal of Business and Psychology, 13*, 437-446.

Meyers, R., & Houssemand, C. (2010). Socioprofessional and psychological variables that predict job finding. *European Review of Applied Psychology/Revue Européenne de Psychologie Appliquée, 60*, 201-219.

O'Brien, G. E. & Kabanoff, B. (1979). Comparisons of unemployed and employed workers on values, locus of control and health variables. *Australian Psychologist, 14*, 143-154.

Organisation for Economic Co-operation and Development. (1997). *Enhancing the effectiveness of active labour market policies: A streamlined public employment service*. (Unpublished manuscript). Organisation for Economic Co-operation and Development, France.

Organisation for Economic Co-operation and Development. (1997a). *O.E.C.D. thematic review of early identification (profiling): National report Australia*. (Unpublished manuscript). Organisation for Economic Co-operation and Development, France.

Organisation for Economic Co-operation and Development. (1997b). *The identification of jobseekers at risk to long-term unemployment (profiling): Issues paper*. (Unpublished manuscript). Organisation for Economic Co-operation and Development, France.

Organisation for Economic Co-operation and Development. (1997c). *The identification of jobseekers at risk to long-term unemployment (profiling): Report of meeting*. (Unpublished manuscript). Organisation for Economic Co-operation and Development, France.

Organisation for Economic Co-operation and Development. (1998). *Early identification of jobseekers at risk of long term unemployment: The role of profiling*. Paris, France: Organisation for Economic Co-operation and Development.

OPRA. (1997). *Needs-based assistance development project: Final report and recommendations. Report prepared for NZES*. (Unpublished manuscript). OPRA, Wellington, New Zealand.

OPRA. (1998). *The final report for the needs-based self-assessment tool. Report prepared for NZES*. (Unpublished manuscript). OPRA, Wellington, New Zealand.

OPRA. (1999). *The longitudinal study of needs-based assessment. Report prepared for WINZ*. Wellington, New Zealand: OPRA.

- Pavoni, N. (2007). On optimal unemployment compensation. *Journal of Monetary Economics*, 54, 1612-1630. doi: 10.1016/j.jmoneco.2006.06.006
- Payne, R. L., Warr, P. B., & Hartley, J. (1984). Social class and psychological ill-health during unemployment. *Sociology of Health and Illness*, 6, 152-174. doi: 10.1111/1467-9566.ep10778241
- Sath, S. (2012). Long-term unemployment and what we need to do about it. *Siliconindia*, 15, 32-33.
- Schmitt, J. & Jones, J. (2012). American's "new class": A profile of the long-term unemployed. *New Labor Forum*, 21, 57-65.
- Skeels, M. M., Kurth, A., Clausen M., Severynen, A., & Garcia-Smith, H. (2006). CARE+ user study: Usability and attitudes towards a tablet PC computer counseling tool for HIV+ men and women. Proceedings from American Medical Informatics Association Fall Symposium (729-733). Washington, DC: AMIA.
- Šverko, B., Galić, Z., Seršić, D. M., & Galešić, M. (2008). Unemployed people in search of a job: Reconsidering the role of search behavior. *Journal of Vocational Behavior*, 72, 415-428.

- Thornberry, T. P., & Christenson, R. L. (1984). Unemployment and criminal involvement: An investigation of reciprocal causal structures. *American Sociological Review*, *49*, 398-411.
- Tiggemann, M. & Winefield, A. H. (1989). Predictors of employment, unemployment and further study among school-leavers. *Journal of Occupational Psychology*, *62*, 213-221.
- Wanberg, C. R., Watt, J. D, & Rumsey, D. J. (1996). Individuals without jobs: An empirical study of job-seeking behaviour and reemployment. *Journal of Applied Psychology*, *81*, 76-87.
- White, M., & Smith, D. J. (1994). The causes of persistently high unemployment. In A. C. Petersen, & J. T. Mortimer. *Youth unemployment and society* (104). New York, NY: Cambridge University Press.
- Wilkerson, J. M., Nagao, D. H., & Martin, C. L. (2002). Socially desirable responding in computerized questionnaires: When questionnaire purpose matters more than the mode. *Journal of Applied Social Psychology*, *32*, 544-559.
- Winefield, A. H. (1995). Unemployment: Its psychological costs. *International Review of Industrial and Organisational Psychology*, *10*, 169-212.

Winefield, A. H., Tiggemann, M., Winefield, H. R., & Goldney, R. D. (1993). *Growing up with unemployment: A longitudinal study of its psychological impact*. London, England: Routledge.

Working Knowledge. (1997). *IEA resource model: Final report and recommendations*. (Unpublished manuscript). New Zealand Employment Service, Wellington, New Zealand.