

## **CAN THE ACTIVITY MATCHING ABILITY SYSTEM CONTRIBUTE TO EMPLOYMENT ASSESSMENT? AN INITIAL DISCUSSION OF JOB PERFORMANCE AND A SURVEY OF WORK PSYCHOLOGISTS' VIEWS.**

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### **ABSTRACT**

Employment Assessment (EA) is concerned with enabling individuals to predict their performance in job opportunities. Job performance and its analysis are key concerns for organisational psychology, although progress is required to develop their utility for EA client work. The Activity Matching Ability System (AMAS) assesses job activities and individuals' abilities and may contribute to EA. In order to begin to explore this possibility, and whether other significant factors might improve EA, a survey was run in parallel with a sample of Work Psychologist (WP) interviews (n=238). Interviewee characteristics (age, ethnic background, etc.) and WP estimates of impact of disability and probability of obtaining employment indicated a varied group, younger than other samples. WPs found that AMAS would enhance EA for one fifth of the sample. AMAS could contribute by aiding exploration of physical and cognitive factors, by providing a focus for assessment, by reviewing what individuals can do at work and by helping confidence. They considered EA would be improved by developing assessments of interpersonal skills, team working, job specific skills and aptitudes, and work placements. Cross tabulation of the data indicated that WP views were not significantly associated with any of the factors researched.

### **KEY WORDS**

Activity Matching Ability System (AMAS), Employment Assessment (EA), ergonomics, job performance, job analysis (JA), Incapacity Benefit (IB), Work Psychologist (WP).

### **INTRODUCTION**

#### **What is EA?**

EA addresses the job-person interaction and seeks to enable individuals to predict their performance and needs in job opportunities, (Birkin, Meehan and Snodgrass, in prep.). EA is described as "assisting unemployed jobseekers to make an informed decision about an appropriate and specific job" (Meehan, Birkin and Snodgrass, 1998). This involves "helping the jobseeker to acquire information about the job (e.g. role, responsibilities, competences, interpersonal skills, etc) and assessing their potential to successfully

perform in the job. The process of EA may involve a number of stages (e.g. interview, measurement, feedback, action planning) and tools (aptitude tests, work samples, job trials, etc), each of which can differ in their predictive ability or quality of information obtained,” (Meehan et al., 1998).

A key concern for EA practitioners is understanding job requirements, particularly tasks, and other factors, such as management arrangements, which may impact on the individual doing the job (hence EA!). Individuals will consider their ability to perform the job and this may involve, at different stages in the process, the EA practitioner helping to clarify the employment impact of health issues or disabilities (see Parker, Wells and Snodgrass, 2002) and/or reviewing the likely effectiveness of potential work solutions. Meehan et al. (1998) suggested the first steps in the EA process will be successful if the jobseeker has confidence in the information about the employment goal. Firstly this will involve information about the requirements of the job, and secondly about their abilities - to enable a consideration of whether they can “successfully perform.” “If one does not know what demands must be fulfilled in a given endeavor,” Bandura (1997) notes, “one cannot accurately judge whether one has the requisite abilities to perform the task. Activities vary widely in difficulty and the subskills they require. They may differ in the demands they make on cognitive and memory skills, on manual facility, strength, endurance, and the ability to manage stress. Even the same activity may tap different capabilities under different circumstances.”

### **Job performance**

Job performance and its analysis have been a central issue for organizational psychology (Viswesvaran and Ones, 2000; Motowidlo and Van Scotter, 1994). Analysis of jobs performance requirements has provided the criteria for job applicant selection and training designed to improve operational performance. Some models of job performance, see Viswesvaran and Ones (2000), may provide helpful structures for exploring the characteristics of specific jobs. For example, Campbell (1990), who described eight categories within which performance can vary in any job, and Motowidlo and Van Scotter (1994) who discuss a distinction between task performance (operational production and support work) and contextual performance (broader organizational, social and psychological environment work). Other authors have noted other areas of job task performance, such as “ability to adapt to changing work situations,” (Hesketh and Neal, 1999; Pulakos, Arad, Donovan, and Plamondon, 2000), “general” or “intrinsic” ability to do the job or the ergonomic match of the individual and job, (Haines, Birkin, Hitchcock, Edwards, Duckworth and Hondroudakis, 2003). Additional interaction with job factors may include response to management and psychological contract. Stress and organisational culture are emphasised by some practitioners.

### **Job analysis**

Job analysis (JA) has been the route to accessing information about job performance requirements. Information may be gathered about groups of jobholders, across job families or using multi-method approaches (see Hobbs and Williamson, 2002, who describe a JA investigation of errors occurring in aircraft maintenance). JA should be purposeful with instruments selected appropriately to address the issues of concern

(Gosden and Birkin, 1999). Some JA instruments may contribute important information about limited areas of a job - and other tools may be required to build an overall picture (Pearn and Kandola, 1993). There is also an issue about whether the current or future job should be assessed, that is whether a more strategic view may be required (see Tinline, Carroll and Hodgson, 1998). Not all JA instruments or techniques are appropriate for single job or job holder situations.

### **What would enhance EA? - Job analysis**

In EA a different type of JA is required. EA practitioners, including Advisers and WPs, need to establish a view of the job so they can help individuals build up a picture or “acquire information about the job,” including the key performance requirements (tasks, responsibilities, standards, outputs, etc.) and features (management arrangements, contract, etc.), (Meehan et al., 1998). With this they can enable the individual to gather evidence about their abilities to deliver the job, their broader “fit” and potential performance in the job. The EA practitioner works within the time constraints of their interview/intervention schedule, etc., and may identify the tasks involved and the related abilities from job advertisements and specifications. If these do not clearly state the job performance requirement the EA practitioner may have to look to other sources, i.e. careers encyclopaedias, job directories, consult with a manager or supervisor reports and, where available, a job analysis.

There is an opportunity to research and discuss good practice in the JA used by EA practitioners. There is also an opportunity to review the job performance literature and consider its implications for EA. Viswesvaran and Ones (2000), noted stand alone, specific dimensions, developed for specific jobs or occupations were likely to involve “too numerous dimensions” and have “only limited value for general theories of work behaviour.” EA practitioners may be helped by increasing the clarity of the dimensions they should address and the opportunity to progress evidence based practice.

### **What would enhance EA? - Person assessment**

There is also a need to develop instruments that can help predict occupational performance from an EA perspective. Birkin and Meehan (1999) note tests have been designed to gather information about job performance but often with objectives other than EA, for example employment selection. Where the adequacy of these tests has been considered it has been in terms of their specific objectives, i.e. selection, (Birkin and Meehan, 1999). Test reviews published in *The Journal of Occupational Psychology, Employment and Disability* are beginning to provide practitioners with information about instruments from an EA perspective, (see, for example, Bodenham, 2001). Other journal papers have also considered how tests designed for other purposes could support EA, e.g. the WAIS-III, (see Parker et al., 2002).

There has also been a call for a practical instrument that would enable individuals to gather information about their match to a job. A seminar at Loughborough University, in 2001, attended by ergonomists, WPs, disability consultants and researchers reviewed the possible roles and potential for AMAS. Delegates highlighted a need for an AMAS like instrument with the potential to explore the activity requirements of jobs and individuals'

abilities, particularly for disadvantaged jobseekers and those with disabilities, but advocated that the system should be: solution orientated, relevant to the current labour market, and straightforward to use.

The general or “intrinsic” abilities and ergonomic match discussed by Haines et al., (2003) are important because it is in this area that individuals may have to discuss their need for work adjustments (i.e. identify and implement a solution to a mismatch) with employers. For example a jobseeker may have the ability to deliver the performance tasks required in job but may not be able to operate the particular switches on a machine or use a particular bench because of a back problem. If different switches were provided or a height adjustment made to the bench then the tasks could be delivered.

Such an instrument could have potential for jobseekers and EA practitioners and it may be possible that AMAS could perform the role required.

### **What is AMAS?**

AMAS aims to match people’s abilities with jobs activity requirements. It does this by identifying the level of requirement for an activity in a job (none, some, major) and whether individuals “can” do the associated ability behaviour, and the considering the “match” of activity and ability.

AMAS addresses general ability to do the job, i.e. can the individual do the job, not how well they will do it. It was established on the ergonomics principle of providing fit for purpose work solutions through ensuring a harmonious relationship between who is doing the work, the tasks they perform, the equipment they use and the workplace itself.

### **AMAS job activity assessment (Ajaa)**

The Ajaa explores the job as it is and determines whether there is *no*, *some* or *a major* requirement for an activity. Whilst most jobs can be done in a variety of ways, it is often custom and practice to do a job in a certain way. The job activity assessment is completed with this in mind, so that any variation from the usual way of doing a job can be highlighted. For example, it is usual for a technical author to read documents using sight, therefore the job usually involves seeing and reading. However, a visually impaired person could do the job, but would need equipment or personal reader.

### **AMAS person ability assessment (Apa)**

The Apa addresses the same areas as the Ajaa. The Apa explores the abilities of an individual within four principle work domains: work environment, equipment used, physical work demands and other work demands such as cognitive or social aspects; AMAS (v1) included a total of 103 items across these areas.

Apa version one (v1), was originally designed to be used by medical practitioners and user guidelines facilitated consistency of assessment. For each item, the assessor would determine whether the individual had no problem (normal ability), some problem (some discomfort or disability) or a major problem (great discomfort, difficulty or inability). In 2002 the Apa was modified, for research purposes, to be a self-report (or assisted self-

report) instrument (v2). This version has the potential to be used by appropriately trained ergonomists, WPs and employment advisers.

### **AMAS Matching**

Once the person ability and job activity assessments have been completed, a matching process then takes place. AMAS (v1) described these as:

- ‘*Good matches,*’ where there is no requirement for an activity, or a person has no problem, or both.
- ‘*Potential mis-matches,*’ where some or a major requirement has been identified in the job activity assessment and/or the person has some limitation in their ability.
- ‘*Poor matches,*’ where there is a major requirement for the activity and the person has some or a major difficulty or inability.

### **The development of AMAS**

AMAS (v1), was developed and evaluated in the 1980’s by the Institute of Consumer Ergonomics at Loughborough University with funding from the European Coal and Steel Community, British Steel Corporation and Remploy (Stead, Watson and Whalley, 1983). Initially AMAS was developed as an aid to facilitate the return of disabled steel workers to suitable jobs following absence due to injury or illness. In 1986, AMAS was developed for use by Remploy in the placement of individuals to tasks within their factories, (Spicer, Clarke and Breeze, 1987; Breeze, Hitchcock, Spicer and Stearn, 1988). Later AMAS was made available for use by the Employment Service (ES) as an enhancement to its portfolio of rehabilitation tools.

An early software platform aided access to AMAS (v1) activity-ability match information. Other aspects of the process of completing the job and person interviews were less straightforward. The Apaa was expected to be completed by a medical practitioner. Additionally AMAS had a manufacturing bias when there was increasing variation in the labour market, with service and Information Technology jobs. ES staff (DEAs/WPs) reported AMAS was cumbersome to use (ES unpublished reports) and, although viewed as a sound concept, usage declined.

### **AMAS - area of application**

AMAS is different to other assessment and JA instruments. AMAS (v2) asks whether individuals “can” do job related abilities and the level of requirement for an activity in a job (none, some, major). It enables people to pull together their thinking about their abilities and job activities and to review the match for specific jobs. It is a phenomenological instrument.

AMAS does not explore to the extent to which individuals possess psychological attributes (aptitude, ability, attitude, etc.). It does not provide a comparison with a norm group. It does not ask worker groups or managers to rate job tasks in terms of importance to achieve objectives or time spent performing them, (cf. the Saville and Holdsworth Ltd. (SHL) Work Profiling System (WPS)).

Generally the jobholder or jobseeker will complete AMAS with the interviewer/assessor, although an attribute of AMAS is that it provides the opportunity for others to complete the activity assessment, e.g. an employer could be asked to provide their view of the job.

Each AMAS activity item relates to an ability behaviour. Duplication of items has been addressed in the development of v3, so the activity/ability items are broadly independent of each other. Internal consistency is therefore likely to be low and validity, particularly content and predictive, to be the important consideration for the instrument. AMAS item responses provide categorical data. The major standards for ensuring content validity are described by Nunally (1957), as a) sensible methods of test construction, and b) a representative collection of items, which may be generated by experts. As noted above the AMAS (v1) items were produced iteratively in different industrial settings, and with reference to users, by a team of ergonomists.

### **AMAS - this study**

To begin to explore the possibility of AMAS and other factors contributing to EA, a survey was designed to run in parallel with a sample of WP interviews. The aim of the study was to gather WP views about 1) whether AMAS can contribute to EA, and 2) if EA may be improved by other significant factors. It also sought to review the characteristics of the interviewee sample.

### **METHOD**

A questionnaire was designed to gather information about interviewee characteristics and to explore the potential contribution of AMAS and other significant factors. The questions are included in the tables of this report.

The interviewees were beneficiaries of the Jobcentre Plus, WPS. Initially all the WPs worked in one Jobcentre Plus Region. Copies of the questionnaire and AMAS (v2) were supplied to all participating WPs. The WPs were asked to conduct their “usual” EA interview and then complete the questionnaire. WPs were asked to explain to each interviewee that they would be completing a questionnaire as part of a research project to help match peoples abilities to jobs.

The data was coded and a cross tabulation approach applied using SPSS v9.0 (Cross tabs routine) and Minitab v13 (Tables of Chi-square).

### **RESULTS**

Eighteen WPs completed questionnaires. The first 238 returned were analysed, (range by WP = 1 to 23). Cross tabulation of the data did not reveal any significant associations - indicating that WP views of AMAS and interviewee's employment probability etc., are independent of the other factors. This indicates that WP views were not significantly influenced by any of the factors researched.

Just under one-third of the beneficiaries were female, (see Table 1, Q2). The majority (56%) were aged 35 or under, and one-quarter were over 43, see Table 1. Other studies exploring employment and health/disability issues have reported “older” samples, e.g.

Meehan and Birkin (1996) found that almost one-half of a large sample (n=1074) of ex-Incapacity Benefit (IB) claimant jobseekers were aged between 46-65 years. Reports generally note that the incidence of health problems increases with age (e.g. Department for Work and Pensions, 2002; Prescott-Clarke, 1990).

Table 1. Service User’s Age and Gender.

Q1. Age:		Q2 Gender:	
	Number. (%)		Number. (%)
1. Under 25	71 (30)	Male	165 (69)
2. 26 - 35	63 (26)	Female	73 (31)
3. 36 - 42	45 (19)		
4. 43 - 49	26 (11)		
5. 50 - 54	21 (9)		
6. 55+	11 (5)		
7. N/r	1 (-)		
Total	238 (100)		

59% of the sample were described as “white” or “British/UK and 21% had other ethnic backgrounds. “English” was predominantly the first language. Table 2. This in conjunction with other tables in the report, describes a varied population, including Black and Asian people and individuals whose first language was European, Asian or African.

Almost 20% of the interviewees were employed, full and part-time, (n=45). The majority were unemployed and claiming benefits (n=188), most frequently JSA (n=113), other benefits included Disability Living Allowance (DLA), Income Support (IS) and New Deal, see Table 3. Fourteen individuals were not earning or in receipt of benefit at the time of the survey, although WPs noted some were beginning claims. Where recorded the time since last employment ranged from a few days to seven years. This differs from reports of individuals claiming IB (DWP, 2002; Birkin and Meehan, 1996).

The WPs noted their view of the beneficiaries greatest functional barrier to employment or their primary disability, see Tables 4a and 4b. Some WPs recorded both and/or more than one primary disability. Table 4a illustrates the very wide range of functional barriers to employment faced by the beneficiaries, with literacy, cognitive issues and lack of skills

Table 2. Ethnic Background and First Language.

Q2a Ethnic Background		Q2b First Language	
	Number.		Number.
White	75	English	191
British/UK	65	European	

European	5	Spanish	4
Caribbean/Afro-Caribbean	7	Portuguese	2
Black	11	French	1
African	4	Hungarian	1
Asian	14	Asian (including Indo-European)	
Other	4	Kurdish	1
Prefer not to disclose	1	Urdu	2
Not known	4	Punjabi	1
N/r	48	Cantonese	1
Total	238	African	
		Somalian	1
		Regional Nigerian	1
		Not Known	7
		N/r	<u>25</u>
		Total	238

Table 3. Employment Status.

Q3 Employment Status:		Number.
1. Employed, full-time		40
2. Employed, part-time		5
3. Unemployed ( <i>a</i> )		16
a) JSA		113
b) IB		28
c) Other		31
4. Voluntary		2
5. Therapeutic Earnings		1
6. Supported Employment		1
7. No earnings or benefits		14
Total		238 ( <i>b</i> )
<i>Notes.</i>		
<i>a. Recorded as unemployed and no other benefit information provided.</i>		
<i>b. Some individuals included in more than one category.</i>		

Table 4. Greatest Functional Barrier to Employment and Primary Disability.

Q4a. Functional Barrier:		Q4b. Primary Disability:	
	Number.		Number.
Literacy difficulties (ns, <i>a</i> )	5	Mental health (ns)	9
Reading	10	Depression	3
Writing	8	Neurosis/anxiety	12



Spelling	4	Psychosis/MD	2
Communication (ns)	1	Behavioural	2
Speech/Language	3	Back Problem	7
Cognitive problems (ns)	3	Muscular/skeletal (ns)	1
Memory	5	Arms, legs etc.	10
Speed of processing	2	Fine dexterity	1
Learning	3	Arthritis	4
Physical problems (ns)	2	RSI	1
Fine dexterity	1	Circulatory	2
Visual motor		Learning Difficulties	
co-ordination	4	(including GLD.)	42
Weak arms/legs	1	SLD	20
Fluctuating condition	1	Dyspraxia	5
Behavioural difficulties (ns)	4	Progressive	1
Over talkative	1	Chest/Breathing	2
Emotional/attitudinal (ns)	2	Sensory - visual	8
Uncooperative	1	- hearing	3
Lack of motivation	1	Epilepsy	10
Lack of disability		Diabetes	2
awareness/insight	2	Head/Brain Injury	25
Unrealistic work goal	3	CVA	11
Lack of skills/experience	6	Br. Func./Dysphasia	3
Other		Cognitive problems (ns)	7
RTA	2	Memory	4
Various difficulties	1	Autistic Spectrum Disorder	4
Special needs	1	Asperger's syndrome	9
		ADD	4
		Neurological (dystonia, MS)	4
		Cerebral Palsy	6
		Other Physical	1
		N/known (and not diagnosed)	3
		N/r	11
Notes.			
<i>a. ns = not specified.</i>			

or experience being recorded more frequently. Mental health, general and specific learning disabilities and head injuries are the primary disabilities noted most frequently, see Table 4, Q4a. There are a broad range of primary disabilities and functional barriers recorded which indicates that WPs need to be able to establish job requirements and identify and clarify related abilities and needs for a diverse population, Table 4, Q4b.

The WPs reported that 15 of the beneficiaries had no experience of work or training, see Table 5., and that for 25 beneficiaries the impact of their disability on work and employment had been less than twelve months. This could have been a result of recent onset of a health issue or disability or recent entry to the labour market. Cross tabulation

suggested that both of these possible explanations were involved, see Table 5a. Half of this group (n=13) was in the “under 25” age range with the following recorded functional barrier or primary disability: SLD/dyslexia, n=5; dyspraxia, n=2 and n=1, dyslexia/mental health; literacy and emotional; head injury; Asperger’s syndrome and no skills. Two of the four individuals in the over 50 age groups reported strokes, one osteo arthritis and another was waiting for a diagnosis.

Table 5. Length of time disability impacted on functioning in work or training.

Q5 Length of time disability impacted on functioning in work or training	
	Number.
1. 0 - 6 months	8
2. 7 - 12 months	17
3. 1 - 2 years	29
4. 2 - 5 years	52
5. 5 -10 years	33
6. 11+ years	56
7. No work experience	15
8. Not able to rate	29
Total	239, (a).
Notes.	
<i>a. One service user was noted as 2 and 7.</i>	

Table 5a. Impact of disability on work and employment less than twelve months.

Q5a. Work/employment impact of disability, less than twelve months. Interviewee age:		
	Number.	(%).
1. Under 25	13	(52)
2. 26 - 35	3	(12)
3. 36 - 42	3	(12)
4. 43 - 49	2	(8)
5. 50 - 54	3	(12)

6. 55+	1	(4)
Total	25	(100)

The interviewees appeared to be at or near the start of their working lives (see Table 5.), and who were considering work opportunities or adjusting to work demands (see Table 3. with regard to those employed).

Individual's jobsearch and employment support systems are those people, professional and personal who support and enable individuals to achieve work goals. The professionals include, DEAs, WPs, Occupational Therapists, Social Workers, and personal includes family, friends, and former colleagues. The WP rating of beneficiary's level of support system is presented in Table 6. Ninety-four (40%) of interviewees had "minimal" or "poor" level of support and 23% had "very good" or "excellent". Of the ninety-four rated "minimal" or "poor" level of support 41% (n=39) were considered by the WPs to be unlikely to obtain employment within six months (p=0 or p=2).

Table 6. Level of support system with regard to jobsearch and employment.

Q5 Level of support system with regard to jobsearch and employment.		
	No.	(%)
1. poor	35	(15)
2. minimal	59	(25)
3. moderate	71	(30)
4. very good	35	(15)
5. excellent	2	(1)
6. Not able to rate	36	(15)
Total	238	

Employment rates for people with disabilities are usually lower than non-disabled groups and previous employment experience is considered to influence future employment opportunities. WPs reported that one-quarter of the service users had spent up to 25% of their working lives in employment related activities, another quarter between 26 and 75% and a further quarter over 76%, see table 7.

Table 7. Percentage of working life spent in employment related activities.

Q7 Percentage of working life spent in employment related activities:		
	Number.	(%).
1. 0 - 25%	61	(26)
2. 26 - 50%	30	(13)
3. 51 - 75%	31	(13)

4. 76 - 100%	57	(24)
5. Not able to rate	57	(24)
6. N/r	2	( - )
Total	238	

WPs considered that one third of the beneficiaries would either not obtain (p=0) or have a low probability (p=0.2) of obtaining employment within six months. Among these groups though were eight individuals who had been referred to vocational training courses that were likely to be ongoing at the six month point, see Table 8. For one quarter of the beneficiaries it was considered that either they “will obtain” or have a high probability (p=0.8) of obtaining employment within six months.

Table 8. WP Estimate of client obtaining employment within six months.

Q8 WP Estimate of client obtaining employment within six months:		
	Number.	(%).
1. Will not obtain employment, p=0	28 ( <i>a</i> )	(12)
2. p=0.2	48 ( <i>b</i> )	(20)
3. p=0.4	19	( 8)
4. p=0.6	39	(16)
5. p=0.8	41	(17)
6. Will obtain employment, p=1.0	16	( 7)
7. In Employment	45	(19)
8. N/r	2	( 1)
Total	238	

*Notes.*  
(*a, b*) *Four to attend training.*

The WPs were asked if there was one significant factor that would make the EA more effective, if a similar assessment was carried out in the future. A wide range of factors was noted, see Table 9, most frequently regarding assessment of interpersonal skills, team working, job specific aptitude and usage of work placements. Comments about the assessment of interpersonal skills included:

- “...relating to others in the workplace”
- “...dealing with enquiries”
- “...interested in retail,” and
- “assessing interpersonal skills and team working more objectively may have improved this client’s insight into how [they] come across/impact on others.”

Other team working comments included:

- “assessment of team working and group interpersonal skills might have developed insight [about job choice].”

The job specific skill and aptitude assessments (most linked to computerised application) related to management (in-tray exercises), data entry, web page design, warehouse, film editing and law enforcement. The opportunity to use, observe, receive and give feedback about interviewee performance were the issues in usage of work placements. Comments included:

- “more time to observe client in the workplace,”
- “in-depth information regarding client’s work experience placements,” and,
- “observation and feedback to client in workplacement...”.

Other factors involved job analysis (eg., “A good, brief but thorough job analysis method”), computerised assessment and testing, work samples (eg., “better work sample exercises” and “assessment of hand/eye co-ordination by worksamples...”) and other specific assessment instruments (e.g., “emotional intelligence/anxiety scales”).

Some of the points concerned EA steps or co-ordination of the EA process, e.g. “if there had been continuity of EA from hospital to the [Jobcentre Plus]” and “direct link to work preparation,” and a number of comments related to the need for the assessment information to be part of process of enabling the beneficiary to develop understanding and progress rather than a discrete step, many of the comments about workplacements reflected this (e.g. “observation and feedback to client in workplacement...,” and “training input re: clients with Asperger’s syndrome”).

Flexibility around assessment was raised in several ways for example workplacements to be used for general and specific purposes, for example “observe ...in a more realistic work situation (neurological deficits),” “work preparation programme focusing on use of memory aids, ” and, “autistic diagnostic schedule cross referenced with workplace behaviour,” and from another viewpoint, one OP noted “For the assessment to be closer to ...home, due to mobility and anxiety issues.” There were also requests for improvements in existing assessments e.g. “better work sample exercises.”

AMAS and issues addressed by AMAS were also noted by the WPs, for example:

- “the use of AMAS may well have helped to focus this client,”
- “close matching of assessment measures to job tasks,” and
- “more detailed job analysis.”

Overall the comments suggest the need for the development of particular assessments but also flexibility in the way EA information is gathered, and used for the beneficiaries advantage within the EA process.

Table 9. Is there one significant factor that would make this EA more effective.....?

Q9 Is there one significant factor that would make this EA more effective.....?	
Yes including	Number. 82

assessment of:	
- interpersonal skills	24
- team working	10
- job specific areas	10
- work behaviour/motivation	4
- low vision	1
usage of work placements	7
computerised assessment and testing	5
medical information/networking	3
benefit progress	1
Don't know/Not sure	19
No/not really	44
N/r	107
Total	250

The questionnaire responses indicated that the WPs to the question about the potential contribution of AMAS (Q10), in different ways. Most appeared to conduct an interview/intervention with a service user and then reflect on whether AMAS would have added anything to the process. Others appeared to use all or some of the AMAS questions as part of their interview. These OPs appeared to take a more positive view of AMAS.

In about one fifth of the interviews (n=48) the WPs considered that AMAS would enhance the EA, see Table 10, and for another 11 EAs a “possible” role was recorded, for example “.it might have guided assessment of level of functioning.” The ability of AMAS to explore physical and cognitive issues was noted. Comments about physical aspects included (re: ten interviewees):

- “could have provided a framework to gauge physical impairments,”
- “some of the AMAS questions would have been useful to gain a fuller understanding of the clients physical capabilities in relation to the job she was interested in,”
- “(useful) to look at back/knee problems reported by jobseeker,”
- “would have been helpful in predicting physical limitations.”

Comments about the cognitive factors (for seven beneficiaries) included:

- “it would have helped clarify ...cognitive match to work tasks,”
- “questions covering cognition (helped to address) training and intellect/adaptability and responsibility”

The WPs noted AMAS would help in assessing/reviewing the occupational implications of co-ordination and dexterity issues. Additionally the AMAS question framework was viewed to be helpful in focusing the assessment (eg. “some parts have been helpful in focusing the assessment” and “AMAS could have provided a tool to start discussion re: capability with specific tasks”), in addressing what individuals can do generally and in exploring abilities and skills (n=8). Other attributes included the ability of AMAS to consider training, responsibility and adaptability were also noted

The AMAS questions were also found to be helpful in enabling beneficiaries to articulate and formulate responses (for example, “helped the client to identify ways of saying what he could do - eg by reference to the activities and abilities. He had limited spontaneous speech”). Other WPs noted concerns about the ability of some beneficiaries to answer the questions (n=3), however the opportunity provided by AMAS of obtaining another viewpoint by involving others, particularly employers, was noted, for example “....not sure if jobseeker would have sufficient insight to reliably answer questions. May be useful if his placement manager was included in the interview” and “Although many of the questions were relevant to this clients situation, she was underestimating her difficulties, so self report would not have given an accurate picture. One option would have been to also ask employer to complete [AMAS] questionnaire and compare the two sets of answers.”

Additionally AMAS enabled beneficiaries to gather together information about themselves that increased confidence. Comments included:

- “Helped client to evaluate a wider range of (their) skills .... and not over focus on limitations of ‘dyslexia’”
- “Helped client to think more positively about skills they had and how they could use them - develop positive dialogue”
- “Helped to build his confidence in other areas (practical) as opposed to large emphasis on reading etc.”

Table 10. Is there any way in which AMAS would have contributed to the EA?

Q10 Is there any way in which AMAS would have contributed to the EA?	
	Number.
Yes	48
Possibly/perhaps/probably	11
Unlikely/probably not/Don't know	18
No/not really	69
N/r	92
Total	238

## DISCUSSION

The results indicate that WPs work with a varied group in terms of age, ethnic background, first language, employment status and experience, functional barrier to employment, primary disability, and, probability of returning to employment. This provides an exacting context for the consideration of the questions about the potential contribution of AMAS and the significant factors that would make EA more effective. WPs found that AMAS would enhance EA for one fifth of the sample. It was considered able to aid exploration of physical and cognitive factors, to provide a focus for assessment, reviews of individuals work abilities and help confidence. The WPs considered that EAs would be enhanced by developing assessments of interpersonal skills, team working, and job specific skills and aptitudes, and the development of work placements for EA purposes. This discussion also reflected a number of issues with links to AMAS, including job analysis and the exploration of specific jobs and abilities.

Cross tabulation of the data did not reveal any significant associations. From one viewpoint this is a positive finding, indicating that WP views of AMAS and their estimates of interviewee's employment probability are independent of the other factors researched. This may suggest the WPs were taking a balanced view of the various factors or that they may have had additional factors, as yet unresearched, in mind. From this perspective it raises a question about what factors, if any, may be at work. This is an area that merits further research - possibly by following up those clients who have been rated in terms of their probability of obtaining employment.

The introduction to the paper discussed the key issues of EA, including the importance of identifying job requirements, particularly tasks, and hence the need for "job analysis." The central role of job performance and its analysis in organisational psychology is noted along with the suggestion that there is the opportunity to explore this work from an EA perspective. Predicting future job performance is an important issue for occupational psychology, employment selection and EA, but in EA the emphasis is on the implications for individuals and their job opportunities - it was suggested that EA would be enhanced if JA was developed specifically for EA purposes. Also discussed is the need to promote the development of assessment instruments for EA purposes and to review instruments produced for other objectives but which may have EA uses. AMAS is introduced as an instrument with considerable EA potential, particularly where practitioners are working with people with disabilities. WPs are aware that many individuals do not find it easy to bring information about life decisions, to decide what factors to address or what weight to attach to them, and sometimes not to miss important issues. AMAS enables individuals to pull information about job activities and abilities together which helps individuals to make their own decisions about employment opportunities.

The paper began with the question "Can AMAS contribute to EA?" To answer this question readers could consider the EA process and explore the questions the questions raised by it:

Does the process/instrument enable the individual (on their own or with appropriate help):

- to predict job performance? or
- to consider interaction of job and self?



- to gather information about the job goal/specific job, i.e. job requirements (task, role etc.) ?
- to clarify impact of health/disability on job performance?
- to identify solutions to job - self issues?
- to present appropriate information to employers about job abilities (and solutions)?
- to develop confidence in jobsearch abilities and activity?
- to develop confidence in job performance abilities?

Can the instrument be used by people with different labour market challenges?

If there is a “yes” response to all or some of these questions then AMAS can be considered to have the potential to contribute to EA. The WP responses indicated they considered that AMAS could have a role in the assessment and clarification of the impact of health and/or disability on job performance, including enabling the exploration of physical and cognitive factors. AMAS enables individuals to review what they can do at work and enable the gathering of information about the job goal, i.e. job requirements including tasks and role etc. and to aid identification of solutions to job activity-ability issues.

The question about job performance is less clear. Although AMAS is not designed to be a performance measure, and it does not address aptitude, skill, competencies, stress, attitude etc. it does indicate if an individual can do a job (and where there may be mismatches). Some of the items have relevance to performance in some job situations. Additionally the question about jobsearch is not addressed directly but responses to the AMAS items may help confidence, particularly as individuals are provided with feedback about good matches and if they are helped to see the value of presenting appropriate information to employers about job abilities and, where required, proposed solutions.

AMAS originally provided the opportunity to explore an actual job by the assessor making a rating, or by involving the jobholder. The survey though asked WPs to consider AMAS usage with all their EAs, these included people who were not working, which required exploring the possible work demands of hypothetical jobs. AMAS had not been used in this way previously, but the advantages are detailed by the WPs and further discussed by Haines et al. (2003). It is important to note that WPs reviewed use of the Ajaa and Apaa but did not have the IT equipment/software to take their review to a full match, see Haines et al. (2003).

Can the instrument be used by people with different labour market challenges? The WP survey suggests that AMAS has a broad application. There are elements that are beneficial for individuals with disadvantages in the labour market, for example some items have visual “illustrations” or graphics to facilitate understanding. It is planned to extend this visual element to all items. This is expected to be an aid for those with language or learning difficulties. The survey reported the variety of first languages encountered by the WPs, and also the incidence of individuals with learning difficulties, (including SLD) and ASD, who also often benefit from visual based or supported communication, Hitchcock, Haines and Birkin (2003).

Overall the survey describes AMAS as a versatile instrument. There is a risk here that it could be viewed as more versatile than it actually is and be used in circumstances where it is not valid. It will be important to clarify for users where and in what situations it is appropriate to use and not use AMAS. AMAS addresses important aspects of jobs but it does not address the entire job-person interaction, such as management style and psychological contract. This has implications for user training. A basic understanding of the EA process and appropriate job knowledge will be pre-requisites. Training should also address area of application, should enable mastery of the roles of interpretation, feedback and solution identification. Practice will be helped by guidelines.

The AMAS approach has the potential for exploring the “intrinsic” or general activity requirements of a job and jobseekers abilities, and establish the ergonomics match between the individual and the job. Where there is a good overall match, it may enhance the individual's confidence that they can perform the tasks of the job. Where mismatches are identified AMAS has the potential to facilitate a discussion of solutions to mismatches. This may also enhance the individual's confidence that they can perform the tasks of the job given appropriate adjustments. It may also enhance the individual's confidence to discuss the adjustments with employers. This may also operate positively on individuals perceived self-efficacy, because they should be able to view the job task performance demands and how their abilities match. It also provides information that can be presented to employers to aid selection decisions. Depending on the clarity of job advertisements and specifications it may be more difficult for jobseekers and EA practitioners to judge what is being looked for, what will be sufficient in terms of evidence and how much time to invest in information gathering.

## **CONCLUSION/NEXT STEPS**

The view of the survey and researchers about the question “Can AMAS can contribute to EA?” is “Yes, but...” Yes, AMAS does contribute to EA and in a variety of ways. It is a versatile instrument that, with further development, could provide an increasing contribution to EA and guidance. It is relevant to a wide range of employment situations, when used to help individuals who face particular challenges in the labour market. The WPs have provided a first view of the possibilities and the broad range of application etc. The “but” is that that this has implications for training and support.

Next steps will be to explore AMAS with employed people with disabilities, (see Haines et al., 2003; Hitchcock et al., 2003), and in service environments, if possible with individuals facing particular labour market challenges, e.g. mental health or the transition from education to employment. It is not anticipated that AMAS will operate unfairly for particular people with disabilities, (see Meehan et al., 1998), but research should explore this possibility, and, if necessary provide advice to guard against adverse impact. This may be helped by qualitative feedback from disabled people using AMAS, including six- and twelve-month follow-up with both candidates and employers, and assessors. Validity issues will need to be explored. Potential users and practitioners will be helped by a

review of AMAS for EA purposes, as outlined by Birkin and Meehan (1999). AMAS users may have different backgrounds but training and guidance should aim to support consistency. Evaluation should consider inter-rater reliability and factors which might impact upon it.

It will be important to develop the solutions approach and the opportunity of a solutions bank. If job activity profiles can be collected there is the possibility of developing a job bank - and the chance for users to compare their ability responses to different job profiles. Progress with a developed IT-platform is on-going, (see Haines et al., 2003).

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